THE

CRITICAL REVIEW.

AUGUST, 1803.

ART. I.—*The Temple of Nature; or, the Origin of Society: a Poem, with philosophical Notes. By Erasmus Darwin, M. D. F. R. S. &c.* 4*to.* 1*l.* 5*s. Boards.* Johnson. 1803.

THERE is a peculiarity in the views, the deductions, and the style, of Dr. Darwin, which renders it impossible to misname the writer, and produces a stronger and more appropriate character than we remember to have met with in the productions of any modern author whatever. In direct contradiction to what has uniformly occurred to us in antiquity, and what we have generally noticed in later times, poetry and philosophy appear throughout the whole of his compositions to be sworn and irreconcileable foes, for ever striving for the mastery, and consequently producing an indeterminate, discordant, and oftentimes incomprehensible effect, adverse to the merit, and inconsistent with the pretensions, of each other. Had he been less of the poet, his philosophy would have been more accurate—had he been less of the philosopher, his poetry would have been more admirable. Even in the mere article of dialect, the language of the one, when exhibited either in the gaudy tissue of tropes and figures, or the recondite dress of technical phraseology, is reciprocally gross jargon to the other. Boldness of fancy, exquisite polish of metre, and elaborate attention to rhymes, may unquestionably combine in such an antagonist association: but poetry has a language of its own; and, if philosophy be the subject to be conveyed by it, this is the only language which must be employed. We have heard that many branches of philosophy have been rendered popular, from Dr. Darwin's mode of treating them: his poetry, we doubt not, has made multitudes of sciolists, though we question whether it have ever produced one proficient: his prose may have engendered many poetasters, without acquainting a single reader with any of the requisites of metre.

These observations relate to the doctor's style. As to his views and his deductions, they are, as we have already noticed, equally his own. Never was the synthetic system carried to a more extravagant extreme. Other philosophers have generally

tion is pleasant and entertaining, nor can we most slightly impeach its accuracy.

ART. 45. — *A Letter to the Right Hon. Henry Addington, Chancellor of the Exchequer, &c. on the Establishment of parochial Libraries, for the Benefit of the Clergy. By a Kentish Clergyman.* 8*vo.* 1*s.* 6*d.* Rivingtons. 1802.

The worthy author proposes a plan to the minister, which, in the present national embarrassments, is not, we fear, likely to occupy his attention. His wish is, that in every parish there should be a library, under the care of the resident clergyman. The expense, for the whole kingdom, he has calculated at little more than half a million. The advantages are manifest. Both preacher and people would receive continual improvement; and, as the selection of these books is to be vested in the bishops, there cannot be a danger of useless or improper writings being introduced into such parochial libraries.

ART. 46.—*Elements of War: or, Rules and Regulations of the Army, in Miniature: shewing the Duty of a Regiment in every Situation. By Nathaniel Hood, Lieut.* 12*mo.* 7*s. sewed.* Debrett. 1803.

These Elements are remarkably neat and perspicuous. The observations are highly proper and well supported; and the whole is well calculated for the improvement of younger officers.

ART. 47.—*A Letter to the Proprietors of East-India Stock, respecting the present Situation of the Company's Affairs both abroad and at home; in Answer to the Statements given in the latter Part of the third Report of the special Committee of the Court of Directors respecting private Trade, dated the 25th of March,* 1802. 8*vo.* 3*s. sewed.* Hatchard. 1802.

Singularly opposite are the opinions respecting the real state of the Company's finances, and the mode by which their trade should be conducted. A fugitive pamphlet has not, however, a sufficient claim on us, to call for a minute investigation of the subject. The author reasons with apparent candour and propriety, and seems to be sufficiently acquainted with his subject; but, were we to notice his work particularly, we could point out the sources of some errors which would greatly alter the result of his calculations.

THE

CRITICAL REVIEW.

AUGUST, 1803.

ART. I.—*The Temple of Nature; or, the Origin of Society: a Poem, with philosophical Notes. By Erasmus Darwin, M. D. F. R. S. &c. 4to. 1l. 5s. Boards.* Johnson. 1803.

THERE is a peculiarity in the views, the deductions, and the style, of Dr. Darwin, which renders it impossible to misname the writer, and produces a stronger and more appropriate character than we remember to have met with in the productions of any modern author whatever. In direct contradiction to what has uniformly occurred to us in antiquity, and what we have generally noticed in later times, poetry and philosophy appear throughout the whole of his compositions to be sworn and irreconcileable foes, for ever striving for the mastery, and consequently producing an indeterminate, discordant, and oftentimes incomprehensible effect, adverse to the merit, and inconsistent with the pretensions, of each other. Had he been less of the poet, his philosophy would have been more accurate—had he been less of the philosopher, his poetry would have been more admirable. Even in the mere article of dialect, the language of the one, when exhibited either in the gaudy tissue of tropes and figures, or the recondite dress of technical phraseology, is reciprocally gross jargon to the other. Boldness of fancy, exquisite polish of metre, and elaborate attention to rhymes, may unquestionably combine in such an antagonist association: but poetry has a language of its own; and, if philosophy be the subject to be conveyed by it, this is the only language which must be employed. We have heard that many branches of philosophy have been rendered popular, from Dr. Darwin's mode of treating them: his poetry, we doubt not, has made multitudes of sciolists, though we question whether it have ever produced one proficient: his prose may have engendered many poetasters, without acquainting a single reader with any of the requisites of metre.

These observations relate to the doctor's style. As to his views and his deductions, they are, as we have already noticed, equally his own. Never was the synthetic system carried to a more extravagant extreme. Other philosophers have generally

begun with the study of nature, and have derived their system from the facts and phænomena which she exhibits: Dr. Darwin, on the contrary, appears to have founded his system in the first instance; and all his investigations into nature are urged with a view of making her bend to the support of his own opinions. With this perpetual bias on his mind, he regarded the world before him but in one individual point of view; and hence all his publications possess such an extraordinary monotony and sameness, that he who reads the one reads the whole. The Botanic Garden and the Zoönomia, the Phytologia and the Temple of Nature, are the same unvaried work served up in so many new forms, sometimes communicated through the medium of technical verse, and sometimes of poetic prose. His theory of organic life does not differ essentially from that of M. Blumenbach; and both are derived from an intermixture of the system of Buffon with that of Brown, to which is added a peculiar superstructure of his own. Dr. Darwin was strictly a materialist: all his principles, and the application of those principles, depend upon the truth of the atomic philosophy, to every monad of which he attributes almost as ample powers as Democritus himself, and very considerably more than were admitted by Epicurus, or his very elegant and enlightened pupil Lucretius. It is true, that, in the beginning of his Zoönomia, he intimates the *possibility* of pure spirit, and its connexion with a material frame: but it is an intimation totally repugnant to his own hypothesis, which derives the mind and the body equally from material molecules, and attributes to different organisations of such molecules all the faculties of motion, perception, consciousness, intelligence, reminiscence, love and hatred, virtue and vice, which appertain either to the body or the soul; and he seems merely to have been betrayed into such a concession, from the desire of palliating the charge of extreme heterodoxy, and of courting popularity at the expense of consistency.

The botanic system of Linnæus is a most happy and convenient arrangement; and, though solely intended for the purposes of the natural historian, is eminently calculated for the service of poetry. Dr. Darwin studied it when a young man, and, with all the enthusiasm of Claudian, devoted it to this very service; and what he at first regarded figuratively, he at length persuaded himself to believe as fact. Hence, from the division of plants into males and females, he supposed them to be actuated by sexual sensations:—by degrees he attributed to them all the hopes and fears, all the pleasures and pains, of human love—he ascribed to them the organs of womb, lungs, nerves, and brain—he conceived them to be actuated by an intelligent principle, and, in their amours, to be at times modest and reserved, and at times bold and libidinous—in some instances

false and coquettish, in others constant and faithful—now guilty of adultery, and now even of Onanism. This our readers may regard as in some measure out-heroding even the licentiousness of poetry: it might, however, have been tolerated in his Botanic Garden; but, when afterwards brought forwards and supported in the plain dress of prose—when openly avowed as his serious belief in two bulky quartos on the Laws of Organic Life, and still more minutely developed since, and with supplementary observations, in another quarto, entitled Phytologia—the temperate and sober inquirer can scarcely regard the author in any other light, than as either hallucinated himself, or purposely endeavouring to hallucinate the world.

But we must return to the work immediately before us, in which the same doctrines, and carried to the same degree of absurdity, are merely re-produced in a new form, and in many instances confirmed by the very same examples. The poem is a posthumous publication; yet the whole appears to have been fully prepared for the press anterior to the decease of the author; in consequence of which, the preface, which is short, is of the doctor's own composition, and dated Priory, near Derby, January 1, 1802. The poem itself is founded on the allegoric scenery exhibited in the Eleusinian mysteries, which our author conceives to have related to the philosophy of the works of nature, together with the origin and progress of society, and to have been explained, by the hierophant or priestess, to the initiated. It is divided into four cantos, which treat progressively of the production of life—the re-production of life—the progress of the mind—and the origin of society. The exordium is highly beautiful, and laboured with uncommon success.

'By firm immutable immortal laws
Impress'd on nature by the Great First Cause,
Say, Muse! how rose from elemental strife
Organic forms, and kindled into life;
How Love and Sympathy with potent charm
Warm the cold heart, the lifted hand disarm;
Allure with pleasures, and alarm with pains,
And bind society in golden chains.

'Four past eventful ages then recite,
And give the fifth, new-born of Time, to light;
The silken tissue of their joys disclose,
Swell with deep chords the murmur of their woes;
Their laws, their labours, and their loves proclaim,
And chant their virtues to the trump of Fame.

'Immortal Love! who ere the morn of Time,
On wings outstretch'd, o'er chaos hung sublime;
Warm'd into life the bursting egg of night,
And gave young Nature to admiring light!—

You! whose wide arms, in soft embraces hurl'd
Round the vast frame, connect the whirling world!
Whether immers'd in day, the sun your throne,
You gird the planets in your silver zone;
Or warm, descending on ethereal wing,
The Earth's cold bosom with the beams of spring;
Press drop to drop, to atom atom bind,
Link sex to sex, or rivet mind to mind;
Attend my song!—With rosy lips rehearse,
And with your polish'd arrows write my verse!—
So shall my lines soft-rolling eyes engage,
And snow-white fingers turn the volant page;
The smiles of Beauty all my toils repay,
And youths and virgins chant the living lay.' P. 3.

In this extract, the address to Love loses no small degree of dignity, from the use of the colloquial pronoun *you*, instead of the more elevated and appropriate *thou;* and the conceit of requesting that the poet's verses might be written with the *arrows of Cupid* is rather adapted to the meridian of modern Rome than of London, and would have been more in character in the pages of Guarini than of Dr. Darwin. To speak the truth, however, LOVE is the chief and almost the only subject of the work. In his youthful years, the doctor never could have been a more complete votary of Venus.

The poet enters the sublime and spacious temple of Nature: he implores the goddess to instruct him in the origin of things, and she, kindly consenting, appoints the priestess Urania to this purpose. Her figure is thus elegantly delineated:—

'Her snow-white arm, indulgent to my song,
Waves the fair hierophant, and moves along.—
High plumes, that bending shade her amber hair,
Nod, as she steps, their silver leaves in air;
Bright chains of pearl, with golden buckles brac'd,
Clasp her white neck, and zone her slender waist;
Thin folds of silk in soft meanders wind
Down her fine form, and undulate behind;
The purple border, on the pavement roll'd,
Swells in the gale, and spreads its fringe of gold.' P. 17.

The hierophant commences her course of lectures on natural philosophy as follows:—

"God the first cause!—in this terrene abode
Young Nature lisps, she is the child of God.
From embryon births her changeful forms improve,
Grow, as they live, and strengthen as they move.

'Ere time began, from flaming chaos hurl'd
Rose the bright spheres, which form the circling world;

Earths from each sun with quick explosions burst,
And second planets issued from the first.
Then, whilst the sea at their coeval birth,
Surge over surge, involv'd the shoreless earth;
Nurs'd by warm sun-beams in primeval caves
Organic life began beneath the waves.' P. 19.

The latter part of this description is unquestionably true—in the *commencement* (we mean of organic or at least animated life) beneath the waves: it is equally consonant with geologic observation and the Mosaic history, which asserts that fishes were created earliest in the order of time. As to the rest, Dr. Darwin is, we believe, the first poet who has deserted the Neptunian theory for the pyritic; and nothing but the novelty of description which it afforded him could have prompted him to such an exchange. The idea of an igneous chaos, and hence the origin of the world from liquid or vitreous fire, is in itself, however, not new: it has been advanced in various modes and at various times ever since the age of Heraclitus, who was contemporary with Socrates, and was afterwards successfully opposed by Lucretius. The igneous system more immediately adverted to, however, is that of Buffon, who has been followed by Dr. Herschel. We cannot here revive the dispute; but shall only state, that, however bold in conjecture, and plausible in a superficial view of the subject, it will not stand the test of chemical geology, as has been already sufficiently proved by M. de Luc and Mr. Kirwan; and that the Mosaic narrative is in this instance as true to fact and experience, as in assigning to fishes an earlier existence than to other animals. The following note is also equally objectionable, and introduced for the express purpose of bending the appearances of nature to our author's own system.

'*Young Nature lisps*, l. 224. The perpetual production and increase of the strata of limestone from the shells of aquatic animals; and of all those incumbent on them from the recrements of vegetables and of terrestrial animals, are now well understood from our improved knowledge of geology; and show, that the solid parts of the globe are gradually enlarging, and consequently that it is young; as the fluid parts are not yet all converted into solid ones. Add to this, that some parts of the earth and its inhabitants appear younger than others; thus the greater height of the mountains of America seems to show that continent to be less ancient than Europe, Asia, and Africa; as their summits have been less washed away, and the wild animals of America, as the tigers and crocodiles, are said to be less perfect in respect to their size and strength; which would show them to be still in a state of infancy, or of progressive improvement. Lastly, the progress of mankind in arts and sciences, which continues slowly to extend, and to increase, seems to evince the youth of human society; whilst the unchanging state of the societies of some insects, as of the bee, wasp, and ant, which is usually ascribed to instinct, seems to

evince the longer existence, and greater maturity of those societies. The juvenility of the earth shows, that it has had a beginning or birth, and is a strong natural argument evincing the existence of a cause of its production, that is of the Deity.' P. 19.

Those of our readers who are not already acquainted with the doctor's tenets, must be astonished at his ascribing a superiority to the *bee*, the *wasp*, and the *ant*, when put in competition with mankind—a superiority accruing from the right of *primogeniture*, and greater *maturity* of powers. We confess ourselves, however, to have been not a little surprised at his conceiving the continent of America to be less ancient than those of Europe, Asia, and Africa, and especially at the proofs on which such conception reposes. The vast height of many of the primary mountains of America and the north of Europe, and the immense quantity of the shells of aquatic animals with which their summits are covered—together with the skeletons of the mammoth, and other enormous animals, which have for immemorial ages become extinct, seem to prove, in direct opposition to our author's conjecture, that here animal life originated, and that this was the quarter first peopled by sentient beings.

The matter of heat, in the language of our author, is *general repulsive æther*, as the power of gravity is *general attractive æther*; all chemical affinities, &c. being merged in the latter, as so many species of one common genus. There is also another æther, formed from the contractile power of the muscles; and this is denominated the *æther of contraction*. How much easier is it to create new names, than to communicate new instruction!—This, however, being premised, we now present to the reader the poet's theory of the origin of organic life.

" First Heat from chemic dissolution springs,
And gives to matter its eccentric wings;
With strong Repulsion parts the exploding mass,
Melts into lymph, or kindles into gas.
Attraction next, as earth or air subsides,
The ponderous atoms from the light divides,
Approaching parts with quick embrace combines,
Swells into spheres, and lengthens into lines.
Last, as fine goads the gluten-threads excite,
Cords grapple cords, and webs with webs unite;
And quick Contraction with ethereal flame
Lights into life the fibre-woven frame.—
Hence without parent by spontaneous birth
Rise the first specks of animated earth;
From Nature's womb the plant or insect swims,
And buds or breathes, with microscopic limbs.
" In earth, sea, air, around, below, above,
Life's subtle woof in Nature's loom is wove;

Points glued to points a living line extends,
Touch'd by some goad approach the bending ends;
Rings join to rings, and irritated tubes
Clasp with young lips the nutrient globes or cubes;
And urged by appetencies new select,
Imbibe, retain, digest, secrete, eject.
In branching cones the living web expands,
Lymphatic ducts, and convolutent glands;
Aortal tubes propel the nascent blood,
And lengthening veins absorb the refluent flood;
Leaves, lungs, and gills, the vital ether breathe
On earth's green surface, or the waves beneath.
So Life's first powers arrest the winds and floods,
To bones convert them, or to shells, or woods;
Stretch the vast beds of argil, lime, and sand,
And from diminish'd oceans form the land!
" Next the long nerves unite their silver train,
And young Sensation permeates the brain;
Through each new sense the keen emotions dart,
Flush the young cheek, and swell the throbbing heart.
From pain and pleasure quick Volitions rise,
Lift the strong arm, or point the inquiring eyes;
With Reason's light bewilder'd man direct,
And right and wrong with balance nice detect.
Last in thick swarms Associations spring,
Thoughts join to thoughts, to motions motions cling;
Whence in long trains of catenation flow
Imagined joy, and voluntary woe.' P. 20.

There seems to be as much skill required in putting the above phraseology of the natural historian into elegant metre, as in versifying the catalogue of ships in Homer. Darwin, like Pope, has succeeded to admiration: but praise for consummate skill is the whole to which either poet can pretend in the present instance. There is, however, a monotony, a meagre uniformity of cadence, in Darwin, which Pope does not betray; and which, considering the former made the latter his great model and archetype, is truly surprising. From page to page, and from book to book, his verses all run in couplets, not admitting, perhaps, of twenty exceptions through the entire poem before us; while the couplet itself is as little varied in its pause and cæsura, as the page in the more general flow of its periods. We refer, as an example, to the passage just quoted, in which the same balanced mechanism is continued from the beginning to the end, the accent uniformly falling on either the fourth or fifth syllable of every line, of which the former terminates with a smaller, and the latter with a full, pause. To this remark, the only exception worth noticing is in the following four verses:—

' Rings join to rings, and irritated tubes
Clasp with young lips the nutrient globes or cubes;

And urged by appetencies new select,
Imbibe, retain, digest, secrete, eject—' P. 23.

in which the latter part of the first is continued into the second, and the accent falls on the eighth, instead of the fourth or fifth, syllable of the third line. In such an arrangement, it is obvious to the dullest ear that there is more mechanism than melody; and, notwithstanding the verbal polish with which it is laboured, the mind becomes speedily fatigued, from the very circumstance of its being speedily fatigued with every thing that is destitute of variety, whatever its intrinsic excellence or general merit.

The two chief points next insisted upon, in the course of the poem, are, that organic life, be its ramifications what they may—mucor, vegetation, reptile, quadruped, or man—originated in the same manner, and that every animal and vegetable was at first aquatic.

" Organic Life beneath the shoreless waves
Was born and nurs'd in Ocean's pearly caves;
First forms minute, unseen by spheric glass,
Move on the mud, or pierce the watery mass;
These, as successive generations bloom,
New powers acquire, and larger limbs assume;
Whence countless groups of vegetation spring,
And breathing realms of fin, and feet, and wing.
" Thus the tall oak, the giant of the wood,
Which bears Britannia's thunders on the flood;
The whale, unmeasured monster of the main,
The lordly lion, monarch of the plain,
The eagle soaring in the realms of air,
Whose eye undazzled drinks the solar glare,
Imperious man, who rules the bestial crowd,
Of language, reason, and reflection proud,
With brow erect who scorns this earthy sod,
And styles himself the image of his God;
Arose from rudiments of form and sense,
An embryon point, or microscopic ens!" P. 26.

To the commencement of this passage is appended the following note.

' The earth was originally covered with water, as appears from some of its highest mountains, consisting of shells cemented together by a solution of part of them, as the limestone rocks of the Alps; Ferber's Travels. It must be therefore concluded, that animal life began beneath the sea.

' Nor is this unanalogous to what still occurs, as all quadrupeds and mankind in their embryon state are aquatic animals; and thus may be said to resemble gnats and frogs. The fetus in the uterus has an organ called the placenta, the fine extremities of the vessels of which permeate the arteries of the uterus, and the blood of the fetus becomes thus oxygenated from the passing stream of the maternal ar-

terial blood; exactly as is done by the gills of fish from the stream of water, which they occasion to pass through them.

'But the chicken in the egg possesses a kind of aerial respiration, since the extremities of its placental vessels terminate on a membranous bag, which contains air, at the broad end of the egg; and in this the chick in the egg differs from the fetus in the womb, as there is in the egg no circulating maternal blood for the insertion of the extremities of its respiratory vessels, and in this also I suspect that the eggs of birds differ from the spawn of fish; which latter is immersed in water, and which has probably the extremities of its respiratory organ inserted into the soft membrane which covers it, and is in contact with the water.' P. 26.

The latter part of this observation, respecting the chicken in the egg, seems successfully to oppose the general position in the former part, and the point principally laboured by our author, that 'all animal life began beneath the sea.' It is equally difficult, moreover, to reconcile the Neptunian theory, which our author is now disposed to embrace; *viz.* that the earth was originally covered with water, with the pyritic theory, or its projection from the sun, in a state of igneous fusion, with which he at first started. Many examples are brought, however, of the transformation of aquatic into aërial or terrestrial animals.

'After islands or continents were raised above the primeval ocean, great numbers of the most simple animals would attempt to seek food at the edges or shores of the new land, and might thence gradually become amphibious; as is now seen in the frog, who changes from an aquatic animal to an amphibious one; and in the gnat, which changes from a natant to a volant state.

'At the same time new microscopic animalcules would immediately commence wherever there was warmth and moisture, and some organic matter, that might induce putridity. Those situated on dry land, and immersed in dry air, may gradually acquire new powers to preserve their existence; and by innumerable successive reproductions for some thousands, or perhaps millions of ages, may at length have produced many of the vegetable and animal inhabitants which now people the earth.

'As innumerable shell-fish must have existed a long time beneath the ocean, before the calcareous mountains were produced and elevated; it is also probable, that many of the insect tribes, or less complicate animals, existed long before the quadrupeds or more complicate ones, which in some measure accords with the theory of Linneus in respect to the vegetable world; who thinks, that all the plants now extant arose from the conjunction and reproduction of about sixty different vegetables, from which he constitutes his natural orders.

'As the blood of animals in the air becomes more oxygenated in their lungs, than that of animals in water by their gills; it becomes of a more scarlet colour, and from its greater stimulus the sensorium seems to produce quicker motions and finer sensations; and as water is a much better vehicle for vibrations or sounds than air, the fish,

even when dying in pain, are mute in the atmosphere, though it is probable that in the water they may utter sounds to be heard at a conderable distance.' P. 29.

The whole is intended to insinuate, that man himself was originally one of these sub-marine microscopic animalcules; and that, by *innumerable successive re-productions, for some thousands, or perhaps millions, of ages*, and by exchanging his aquatic for a terrestrial element, in which the *blood must necessarily become more oxygenated*, he progressively *possessed a greater stimulus*, and acquired *a sensorium of quicker motions and finer sensations*, till at length he realised the form, and possessed the intelligence, which are exhibited by the human race of the present day; although, from the changes which are perpetually taking place in his constitutional texture, it is impossible to affirm that the same figure and intelligence will be exhibited by men of future ages. It may well be doubted, whether poets or philosophers possess most imagination. Homer originated mankind from the celestial regions, by means of a golden chain or ladder—Ovid, from stones--the Stoics, from fungi or mushrooms—Lord Monboddo, from monkeys—Dr. Darwin, from fishes—and the Epicureans, equally objecting to the first and last opinion,

(Nam neque de cœlo cecidisse animalia possunt,
Nec terrestria de salsis exîsse lacunis)

contended that Earth, or the dry land alone, was the mother of man, and reared his embryo race in myriad little wombs, which rose in a bulbous form over her surface, and which, after their birth, were converted into the same number of lacteal breasts or udders, whence the new-born fetuses were supplied with a due proportion of food, and evinced, in consequence, a progressive increment. The hypothesis is thus elegantly given by Lucretius, v. 805.

Hoc, ubi quæque loci regio, obportuna dabatur,
Crescebant uterei terrâ, radicibus aptei:
Quos ubi tempore maturo patefecerat ætas
Infantum, fugiens humorem, aurasque petissens,
Convortebat ibei Natura foramina terræ,
Et succum venis cogebat fundere apertis,
Consimilem lactis: sic, ut nunc femina quæque
Quom peperit, dulci repletur lacte, quod omnis
Inpetus in mammas convortitur ille alimenti.

Of these various conjectures, we confess we prefer that of the Epicureans: it is equally probable, and, as rendered in the verses above, certainly not less poetical or elegant.

(To be continued.)

ART. II.—*Observations on the Increase and Decrease of different Diseases, and particularly of the Plague. By William Heberden, Jun. M. D. F. R. S.* 4to. 5s. *sewed.* Payne.

WE are informed, in a modest advertisement, that these observations were designed for a new edition of the Bills of Mortality—a work which, with some remarks of this kind, would, we think, be highly useful. In this separate publication, Dr. Heberden disclaims any motives of vanity or self conceit; any forwardness to broach new opinions, or wish to support a favourite system.

'If he has stated any thing as fact, he has at least endeavoured to do it fairly; or if he has hazarded any conclusions, he has at the same time laid open the sources from which they were drawn. His object is to direct the attention of the medical world to a subject which has hitherto been very much neglected; and which appears to him capable of being employed to valuable purposes.' P. iii.

The present is a work of labour and attention; and, though some opinions, different from the common, will of course arise in this examination, yet any degree of vanity will admit but of a poor gratification from such a laborious exercise. We may perhaps conclude with some remarks on the construction of such tables, and the very improper manner in which they have been employed, as a foundation for the calculation of annuities, and societies for the benefit of survivors. On this account, we shall not stop to examine the question, adduced by the author in the preface, whether the authority of the bills be too vague to be made the foundation of certain results, or whether authors have not built on this foundation, without sufficiently considering its real effects. Dr. Heberden concludes that—

'The agreement of the bills with each other, does alone carry with it a strong proof, that the numbers under the several articles are by no means set down at random; but must be taken from the uniform operation of some permanent cause. While the gradual changes they exhibit in particular diseases, correspond to the alterations which in time are known to take place in the channels through which the great stream of mortality is constantly flowing.' P. v.

The remainder of the preface adverts to the vague manner in which these bills are often kept, and the inaccuracies to which they must be unavoidably subject.

The first part relates to 'the increase and decrease of different diseases;' and, for the illustration of the subject, two tables are inserted, the first consisting of 'the annual christenings and burials in London for each year of the eighteenth century, together with the proportion of every thousand who have

died by bowel-complaints, small-pox, palsy, meazles, or child-birth.' The second offers the weekly variation of ten different articles, for ten years—*viz.* of the whole number buried; of those under two years and above sixty, and of the numbers dying of apoplexy, palsy, or suddenly: of child-bed and miscarriage; consumption; fever; colic, flux, gripes, and looseness; meazles; small-pox. Each table is extracted from the bills of mortality. From the remarks, we shall select some of the more important facts.

'The annual mortality appears by the parish clerks returns to have increased from the beginning of the century to the year 1720; to have been at its greatest height from 1720 to 1750; and from that time gradually to have decreased.' P. 30.

'It is not easy to account for the diminution of christenings between the years 1740 and 1760. But it may be observed, that the number of females buried in the same twenty years not being sensibly lessened, the defect, however that should happen, seems to have arisen from the smaller proportion among them who bore children.

'Whatever be the cause of this, the christenings appear in fact to have been the fewest at a time when the burials were nearly at the highest. Hence the difference of the numbers christened and buried is greater between the years 1740 and 1750, than at any preceding or subsequent period. This difference diminished afterwards; but still continued very considerable till about 1770. Now, it was from an average of ten years taken in this interval, namely from 1759 to 1768, that Dr. Price constructed his tables of the probabilities of life, and from which he deduced the population of London. The excess of the burials above the christenings amounted at that time to nearly one-third of the whole number of burials. At present, it is less than one-twentieth: nay, in the years 1790, 1797, and 1799, the excess was actually on the side of the christenings. Such a prodigious change ought, one would think, considerably to alter Dr. Price's conclusions. Some allowances are however to be made; particularly in consequence of an act of parliament passed in 1767, by which it is required that all parish infants shall be sent into the country in three weeks after their birth, to be nursed there till they are six years old. How many burials of children are taken out of the bills in consequence of this act, it is not easy to estimate; but that it must be a large number, is rendered probable by the remarkable decrease of those reported to die under two years of age. Between the years 1728, when the ages were first set down, and 1738, their number amounted one year with another to above 10,000; in the next decad to above 9,000; in the decad following to 7,800; and between 1790 and 1800, to little more than 6,000 annually. It is to be hoped, however, that as this decrease began to take place before the date of the act in question, so its continuance since may in part be with justice attributed to the greater salubrity of the town.' P. 32.

Having had so many opportunities of pointing out the inconsequence of Dr. Price's reasoning, on the subject of the popu-

lation of England and France, we cannot suffer the instance of disingenuity here recorded to pass without a remark. May it not, however, have been accidental? Had it stood alone, candour would have admitted the plea; but joined with so many gross instances of unfairness, of a wish to depress the power of England and magnify that of France, we think design is too obvious.

The variations under the eighth head are peculiarly striking. The average of deaths from colics, &c. from 1700 to 1710, is about 1070 annually; from 1790 to 1800, twenty only. Of the increase of deaths, since inoculation, nothing new can be said. Those from apoplexy, &c. from the beginning of the eighteenth century, have been gradually increasing, and are now nearly double what they were a hundred years ago.

The deaths from the meazles have been very irregular in their numbers; and it seems probable that the scarlatina anginosa has been occasionally mistaken for the rubeola. The amount of those who died from lying-in is not estimated correctly. From the records of the British Lying-in Hospital, and that in Brownlow-street, more satisfactory and correct information is supplied. From 1749, during the first ten years, one in forty-two of the women, and one in fifteen of the children, died: the number gradually lessened; so that, from 1788 to 1798, the proportion was one in 288, and one in seventy-seven, respectively. In 1789 and 1800, the proportions were one in 938, and one in 118.

'The following statement was deduced in a coarse manner, from an average of about ten years, for the purpose of comparing generally the mortality occasioned by certain diseases, at the beginning, middle, and end of the eighteenth century; care being taken in each period to select such years, in which the whole number of deaths was nearly the same, *viz.* about 21,000.

	Beginning.	Middle.	End.
Abortive and still-born - -	600	570	750
Colic, flux, gripes, &c. -	1,100	135	20
Consumption - - -	3,000	4,000	5,000
Dropsy - - - - - - -	850	900	900
Evil - - - - - - - -	70	15	8
Fever - - - - - - -	3,000	3,000	2,000
Gout - - - - - - - -	26	40	66
Lunatic - - - - - -	27	75	70
Palsy, apoplexy, &c. - -	157	280	300
Rickets - - - - - - -	380	11	1
Small pox - - - - -	1,600	2,000	2,000

To these might be added the article of convulsions. But it will appear upon enquiry, that the change has in this instance taken place in the name only, and not in the real number of deaths. There can be little doubt, but the same diseases of children, which used formerly to

be called chrysoms and infants, are now accumulated under the general head of convulsions. For we may observe the decrease of the two former articles to have taken place in a proportion very exactly corresponding with the increase of the latter.

'The apparent increase of the abortives and still-born will likewise in great measure vanish, if we refer them, as we ought, not to the burials, but to the births; the number of christenings, at the three periods above mentioned, bearing very nearly the same proportion to each other, that obtains in these articles. Nevertheless it must be observed, that the register of the Brownlow-street Hospital also exhibits a very sensible increase in the number of children still-born.' p. 42.

The rickets and scrofula seem to decline; but the latter may be owing to the disinclination of avowing the complaint. From 1751, when the distillation of spirits was first restrained, and their use checked by additional duties, dropsies, and deaths from excessive drinking, have been considerably lessened. From the weekly tables of mortality, it appears that the number of deaths is greatest in January, February, and March; the smallest in June, July, and August. This must, in part, arise from the different numbers collected in the city at these different periods. We think that the rule will not be confirmed by observations made out of London; but it is apparently supported by the registers collected by Dr. Short from twenty-five different country-towns, by the registers of York, Paris, Edinburgh, and Sweden. At Marseilles and Montpellier, the periods of the greatest and least mortality differ.

Under two years of age, the greater number die in the three earliest months, or in *September* and *October*. It is remarkable that the greater number of births occur in January, February, or March. Of people above sixty, the greater number die in the coldest months; and, in different years, the greatest numbers die in the coldest years also. In very cold years, a greater number of children seem likewise to die, but by no means in so large a proportion. From apoplexies and consumptions, the chief mortality is also in the colder months. Frost appears not to be peculiarly wholesome, and wet weather not particularly noxious. To the latter proposition, we can freely assent; but we have had occasion to observe, that we have found severe and continued frosts healthy. With respect to the healthiness of warm moist winters, we think there is a fallacy, as the injurious effects are not felt till the following autumn. Rapid transitions from heat to cold are by no means so injurious as some authors have supposed.

The second part relates to the plague, in which Dr. Heberden collects much that has been already told, and adds little to our information. The extinction of the plague in England, he attributes to the fire in London; and its not returning, to the changes in our manners and mode of living, which render

us unapt to receive it. We remember observing, that, when the fear of our importing the yellow-fever was prevalent, there was really little danger, unless we could also import American constitutions; and this idea was confirmed by our having seen this fever, as described by the American physicians, in this country, but in a mild form, and not infectious. It could be evidently traced to the sea-ports, and very nearly to American ships.

Dr. Heberden seems to think the plague infectious: yet the tenor of his observations shows that it is rather communicated from the air, than from infection itself. A pestilential fever, he remarks, often precedes and is absorbed in the pestilential epidemic; nor are any very clear marks of distinction laid down. We may indeed observe, that, during the prevalence of all epidemics, every other febrile disease disappears: and this is not peculiar to the plague; for the local affection sometimes attends other fevers. Yet, on the whole, the buboes are, if not exclusively peculiar to, yet more particularly observable in, the pestilential disease; and there are many other marks of its being a distinct disorder. Our late expedition to Egypt has familiarised our practitioners to it; and they were little afraid of infection, when the disease was properly known. That it is not a putrid disease, is very evident; it is rather a highly asthenic fever, in which the patient sinks through debility, with scarcely any sign of putrid fluids. We have, however, *still* our epidemics, which occasionally distress us, and are at times fatal, though not putrid. Thus the late influenza, the *grippe* of the French, was a highly debilitating disease, and perilous from the sinking of the constitution: putrid peripneumonies have also occasionally become frequent in particular districts, and been often fatal: others might be added. Did the plague occasionally recur, these would be swallowed in its vortex; but at present they appear distinct. We mean not, however, to put them on a footing with the plague. Even the late influenza, we believe, never destroyed, in the whole kingdom, five hundred persons, if we except those who, tottering over the grave, would have fallen on the slightest attack of an indigestion or a common cold; and if, in any district of this kingdom, an epidemic become fatal to a dozen persons, the greatest alarm ensues. On the whole, we have now little to dread from epidemics, and nothing from the plague—*Suave mari magno*, &c.

We promised some observations on the construction of bills of mortality, and the improper use which has been made of them; but our article has extended so far, that we can allot but a few words to this subject. From an error in their construction, or other causes, the mortality has appeared too great; and the calculations resulting from them have hence failed. In

societies in favour of survivorship, too few have died. This, in part, arises from the calculations having been made for great cities, while the societies have admitted, indiscriminately, the inhabitants of the country. If the population had not been rated too high, the error would have been still greater. At present, we believe the deaths in large cities are considerably exaggerated, and those in the country not properly appreciated. If we were to hazard a calculation, from the average of many cities and country-towns now before us, we should be disposed to assert, that, in the whole of England, not one in forty-five dies annually. In general, however, the average has been taken much lower, and the event is the destruction of the hopes of numerous individuals. We have before us the calculation of many tontines. After about twenty years, not one quarter of the mortality, promised by numerous bills, has taken place. In one instance, three only have died, when twenty-five was the number expected.

ART. III.—*Transactions of the Linnean Society. Volume VI.* 4*to.* 2*l.* 2*s.* *Boards.* White. 1802.

WE will not delay our account of the labours of this respectable society by any formal introduction; and indeed the present volume offers no subject of preface on our part. We shall therefore follow the articles, as usual, in their order.

'I. A Dissertation on two natural Genera hitherto confounded under the Name of Mantis. By Anthony Augustus Henry Lichtenstein, D.D. F.M.L.S. Translated from the German by Thomas Young, M.D. F.R.S. and L.S.'

Entomology must be allowed to be yet in its infancy; and each step, when carefully undertaken, and with proper views, will be of service to its progress. The separation of those species which feed on plants, and have no falciform fore-feet, (their legs being all formed for running) from the genus mantis, was first suggested by Stoll, a naturalist of great acuteness, but without education. He anticipated the genera of Fabricius; for he systematised, it is said, nearly in the same manner, without any communication with that naturalist: but, though he died before the work of Fabricius was published, he might have been informed of its substance. The coincidence is too striking to be accidental. The discrimination between the mantis and the new genus phasma, or spectre, selected from the species formerly arranged under the genus mantis, we shall select.

'PHASMA. "Laubschrecke."	'MANTIS. "Fangschrecke."
1. *Antennæ* setaceous with longish divisions.	1. *Antennæ* filiform.

' PHASMA. " Laubschrecke."	' MANTIS. " Fangschrecke."
2. The *head* large and oval-round; the mouth with moveable jaws and four palpi.	2. The *head* nodding, heart-shaped, with jaws and palpi.
3. Small reticulated *eyes* on the forehead.	3. Two large prominent *eyes* on the sides.
4. Three clear *stemmata* in a triangle between the eyes.	4. In most species two clear *stemmata* between the roots of the antennæ.
5. The *body* linear, almost cylindrical.	5. The *thorax* narrow, on the back somewhat carinated, at the margin compressed.
6. Six legs for running.	6. Six *legs*, the foremost with falciform hands, and a thumb of five joints at their side; the rest slender and unarmed.
7. The *tarsi* consist of five joints.	7. The *tarsi* have five joints.
8. The *hemelytra* [*deckflügel*] skinny, very short, so that they scarcely cover a third part of the abdomen. The wings at the external margin membranous, about as long as the abdomen.	8. The *hemelytra* folded crosswise together, of the length of the wings beneath them, covering almost the whole abdomen.'

Their modes of life equally differ. The former live on vegetable food, lay their eggs, like grasshoppers, in the earth, which the female penetrates with a small style, of an ensiform figure, covered with three leaflets found on the last division of the abdomen; while the latter feed on animals, which they catch and carry to their mouths with their falciform hands, and fix their eggs on twigs, straws, &c. in regular rows or masses. The more minute differences are too long for our notice. Of each genus we have a distinct character; and the species are well discriminated, with the necessary synonyms. About seventeen new species are added; and drawings of the P. filiforme hecticum, and Ortmanni, with the M. filum, contribute to illustrate the descriptions. Some little difficulties arise, from the males and females of each species not being discriminated; and it is remarked that the first fifteen mantes of Fabricius are phasmata, so that this naturalist seems to have noticed a striking distinction.

' II. The Botanical History of the Genus Ehrharta. By Olof Swartz, M.D. F. M. L. S.'

The grass arranged under this genus was first discovered at the Cape, by Thunberg, and described and delineated by him in the Swedish Memoirs for 1779. In the same year, it was adopted among the Nova Graminum Genera, by the younger Linnæus; and a grass was described in the Journal de Physique, under the title of trochera striata, nearly related to the Ehrharta. Some time afterwards, three other species were de-

scribed and delineated by the president of the Linnæan society, the first of which was descried by Sonnerat, at the Cape, in 1776, and the latter had appeared in the Linnæan supplement, with the appellation of aira capensis. From the similarity of this genus with the melicæ, our author was anxious to rescue those species which might have been confounded with them; and we find three species of melicæ, and two of airæ, now added to the genus Ehrhata by an examination of Thunberg's own herbarium. These are carefully described, and the distinguishing parts accurately represented. The trochera striata is added.

'III. Account of a microscopical Investigation of several Species of Pollen, with Remarks and Questions on the Structure and Use of that Part of Vegetables. By Luke Howard, Esq. of Plastow in Essex.'

It was well known that the pollen—the dust separated from the extremities of the antheræ—when wetted, would explode, and throw out minute grains, supposed to be the substance that impregnated the female organs, in order to the production of the new vegetable. Mr. Howard has not added greatly to this knowledge, though he has made some progress. He concludes, with sufficient accuracy,

'1. That each grain of pollen in the anther is an organic body, variously constructed in various species, and containing

'*a* Vessels or pores capable of imbibing water, of distending thereby and contracting again when it quits them; in which particulars they resemble sponge, &c.

'*b* A parenchyma, consisting of some substance (of greater specific gravity than water, and insoluble therein), which is emitted with a greater or less degree of force when the stimulus of alcohol is applied to the absorbent vessels. This substance is either in part soluble in alcohol, or the grains contain

'*c* An essential oil or resin, to which they owe their colour and odour.

'2. That there exists in the grains of pollen, in a very eminent degree, that property of vegetables called irritability, which they are capable of retaining for a certain time after separation from the anther.

'That alcohol is the proper stimulus by which this irritability may be excited, and the texture of the pollen in some manner developed in consequence thereof. I prefer this method of accounting for the appearances that take place when the pollen is immersed in spirit to another that might be supposed on chemical principles, being assured, that any one who has once inspected the process will be satisfied that something more than mere solution or chemical decomposition takes place therein, and that the vital principle of the pollen is the chief agent.

'The liquor from the tube of the pistil and the solution of sugar were, indeed, found to bring on the evolution of the pollen of *cactus flagel.* in a slower manner than spirit; but when we consider how

speedily such matters pass into the vinous state, it seems possible that both of these might contain alcohol. Yet, it is also possible that something common to this latter substance, with the saccharine matter it is producible from, may be the real exciting cause.

'The existence of absorbent vessels in the pollen is proved by the change of form, increased transparency, and great distension produced by the water. It is remarkable, that complete saturation usually brings the grains near to a spherical shape, however remote from it their original one.' P. 70.

The existence of the parenchyma is evinced by various arguments; and the explosion will explain the different motions previous to the discharge. The particles of starch seem, from examination, to resemble pollen in its structure; and all vegetable fæcula seems of a similar nature. The potatoe appears only an assemblage of the grains of fæcula; and, when boiled or roasted, so as to become mealy, the water is absorbed in these grains, as in the pollen when moistened. Some hints, to assist the vegetable physiologist in pursuit of this investigation, are subjoined.

'IV. Observations on Aphides, chiefly intended to show that they are the principal Cause of Blights in Plants, and the sole Cause of the Honey-Dew. By the late Mr. William Curtis, F.L.S.'

This very curious and entertaining paper explains the natural history of these little insects, which very generally occasion blights. Two very singular circumstances in their œconomy deserve notice; the one is, that they are occasionally oviparous or viviparous, as the cold is more or less intense; and the other, that the same impregnation extends its effects to perhaps more than twenty succeeding generations, without requiring to be repeated. The honey-dew is the excrement of these insects. Water does not injure them, and tobacco-smoke only is noxious. Their great enemies are the coccinella or lady-bird, the ichneumon fly, and a species of musca, thence called aphidivora. The following description of the destruction of the aphis by the ichneumon is highly curious.

'Another most formidable enemy to the *aphis* is a very minute, black and slender ichneumon fly, the *ichneumon aphidum* of Linnæus. The manner in which this insect proves so destructive to the *aphis* is different from that of the lady-bird. The female ichneumon, of which numbers may be found where *aphides* are in plenty, settles on a stalk, or leaf, more or less covered with them, marches slowly over their bodies, feeling with its *antennæ* as it proceeds for one of a suitable size and age; which having discovered, it pushes forward its body, or abdomen, in an incurved state, and with a fine instrument at its extremity, invisible to the naked eye, punctures, and deposits an egg in, the body of the *aphis;* which having done, it proceeds, and lays an egg in a similar way in the bodies of many others. The egg thus deposited quickly hatches, and becomes a small *larva*, or maggot, which

feeds on the substance of the *aphis*, and, having eaten the whole of it, the skin excepted, it changes to a *pupa*, or chrysalis; in which state when it has remained a sufficient time, it becomes an ichneumon fly, which eats its way out of the *aphis*, leaving the dry inflated skin of the insect adhering to the leaf, like a small pearl. Such may always be found where *aphides* are in plenty. We have observed different species of *aphides* to be infested with different ichneumons.

'In general the torpid *aphis* submits quietly to this fatal operation; but we have observed some of them, especially one that feeds on the sycamore, which is much more agile than many of this race, endeavour to avoid the ichneumon with great address.' P. 87.

'V. Remarks on the Genera of Pæderota, Wulfenia, and Hemimeris. By James Edward Smith, M. D. F.R.S. P. L. S.'

Some little confusion has arisen with respect to the genus pæderota, in consequence of negligence in adding the synonyms. Dr. Smith proposes uniting this genus to the Wulfenia, which it will readily admit, and distinguishes carefully the wulfenia and the hemimeris, as the pæderota, when first discovered, was referred to the latter. Two plants, which have been preposterously arranged under the genus celsia, are here brought back to their proper station, under that of Wulfenia.

'VI. An Illustration of the Genus Solandra. By Richard Anthony Salisbury, Esq. F.R.S. and L.S.'

This article is in Latin; and there is apparently an omission of a few words, or a short sentence, in which Swartz's name occurs. This we now mention, as we observed a similar omission in Mr. Curtis's paper. Neither omission is of consequence to the intelligent naturalist, but should have been avoided. Lamarck styles this plant a datura; but Mr. Salisbury very clearly shows that it is of a very different genus and family, and with great propriety commends Mr. Aiton's reserve in forming new genera. A full description of the plant, with a plate, is subjoined.

'VII. Observations on some remarkable Strata of Flint in a Chalk-pit in the Isle of Wight, in a Letter from Sir Henry Charles Englefield, Bart. F.R.S. to John Latham, M.D. F.R.S. and L.S.'

'XXI. Additional Observations on some remarkable Strata of Flint in the Isle of Wight, in a Letter from Sir Henry Charles Englefield, Bart. F.R.S. to John Latham, M.D. F.R.S. and L.S. of Romsey.'

These papers must be considered together, as on the same subject. Sir H. C. Englefield cursorily describes the strata of the Isle of Wight, before he speaks of the flint. The island is of a rhomboidal form, and its four angles are nearly in the four points of the compass. The range of chalk-hills, which nearly divide it, runs east and west; but these hills are not of equal breadth and height, nor do they lie in a straight line.

'At Bembridge, where they form the eastern point of the island, they rise abruptly from the sea to a height of about 400 feet; and, bending a little to the northward, they continue of nearly the same elevation and a very narrow breadth, till they terminate at the valley through which the Medina runs. To the west of the Medina the range grows considerably wider, and is subdivided into several subordinate vallies. This additional breadth gives the southern limit a great curvature to the south, while the northern line remains nearly straight. Their elevation increases much, and at Mottiston is 700 feet. The acute and perpendicular promontory in which they terminate to the west, well known by the name of the Needles, is nearly as high as Mottiston. Besides the valley of the Medina this range is singularly interrupted by two vallies exactly similar to each other at the two ends of the island. Brading Haven renders Yaverland at the east almost an isle, and the Yarmouth inlet cuts off the western end so nearly that at high tides it is sometimes quite insulated at Freshwater Gate.

'To the north of this range of chalk hills the soil is chiefly clay, with a superstratum, in many parts, of gravel. The clay is interspersed with many beds of stone of different qualities, and which appear to lie in great confusion. Of these some are grit with a slight admixture of calcareous matter; others have nearly equal parts of sand and lime, and others are purely calcareous. In the first, which are of great hardness, very few extraneous bodies appear. In the second are many fine impressions of shells, while the last are almost entirely composed of moulds of turbinated shells so as to appear quite honeycombed by them. This stone is, however, of great durability, for the walls of Cowes Castle, which was built by Henry VIII. and is exposed to the sea air from west and north, are as perfect as on the day in which they were built. Below all these strata of stone, at East Cowes, and just above a bed of black and solid clay, is a stratum of shells about two feet thick, of which a specimen accompanies this, and which is totally composed of these shells without any admixture or earth whatever. As the sea makes great inroads here, vast heaps of these shells lie on the beach, and seem just washed up by the waves, instead of being torn from their bed in the cliff. They appear nearly in the same state as those on the Hampshire coast, which have long been famous among naturalists. In the bed at East Cowes there appears however no variety; for I could see no species but what are here exhibited.

'Whatever confusion in the strata appears to the north of the chalk range, or in that range itself, disappears to the south of it, where the strata are nearly in a horizontal position, and singularly regular and undisturbed. The sea coast from Bembridge south to the Needles, except in the small extent of Sandown Marsh, is every where higher than the immediately contiguous land of the island, and to the south-east rises into a vast range of hills running from Dunnose west to St. Catherine's. The substratum of these hills seems every where to be clay lying in strata of different colour and purity. The lowest is black and very hard; approaching to shale. Above this some strata have a great mixture of sand, and take the appearance of a soft stone breaking into very regular cubical forms. These strata extend over the whole southern part of the island, and terminate against the chalky range

very suddenly. Above the clay strata is a bed of stone in thin layers, and of very mingled materials, but in general very hard. Great quantities of chert or flint nodules appear in this stone. The general thickness of the stratum is from 150 to 200 feet. Above this the highest hills of the range have a stratum of chalk, not pure or white as that of the chalk range properly so called, nor producing flint so black.' P. 104.

The chalk-pit described is situated on the northern edge of the range, a little beyond the village of Carisbrook. It is chiefly remarkable from the flints lying in thin strata considerably inclined to the horizon, and their being in general powdered or bruised. The author supposes that this may be owing to the convulsion, which changed their horizontal direction. But this implies that the flint must necessarily be solid, which the mineralogist will not admit. Wallerius remarks, even of sand, that we may as well suppose quartz conglutinated sand, as the latter comminuted quartz. In the second article, some further account is given of the strata of the island, and particularly of the Needles and the pillars in the cave near Fresh Water. These appear to be siliceous vertical strata, and to have resisted the action of the water, which destroyed the softer chalk.

'VIII. Remarks on some British Species of Salix. By James Edward Smith, M. D. F. R. S. P. L. S.'

The British species of salix are not clearly understood, though Dr. Smith makes no inconsiderable progress towards this object in the paper before us.

'Some difficulties which attend the investigation of this genus are almost peculiar to it. Willows to be well understood require to be studied at three different periods of their growth; first when in flower, at which time the leaves in general scarcely appear at all; next when the capsules are fully formed and nearly ripe, and the leaves just expanded, with their stipulæ; lastly when the leaves have attained their full size, and all remains of the fructification have disappeared. In this last state the true form, and pubescence or smoothness, of the leaves is to be known; in the second the nature of the stipulæ, which frequently are very deciduous, and the figure and surface of the capsules; whereas in the first state the very discriminative and curious parts of the flower, the stamina, nectaria, and, above all, the proportion and structure of the germen, style and stigmata, are only to be learnt. I have found the last-mentioned parts so constant and important, so strongly indicative of natural subdivisions of the genus, that if we could at all times command them, they would certainly afford better characters for that purpose than the margin or pubescence of the leaves. But the dicœcious nature of these plants is another inconvenience, and peculiarly militates against a general arrangement of them according to parts, which it is an even chance whether we meet with or not, and which are moreover so very transient.' P. 111.

The publication of Hoffman's very valuable work, entitled Historia Salicum, has given Dr. Smith advantages which the

authors of the Flora Anglica et Scotica did not possess; and the opportunity of examining Mr. Lightfoot's Herbarium, by which his doubtful species could be compared with Hoffman's work, still further lessened his difficulty. The assistance of Mr. Crowe, whose constant and unwearied attention has been directed to this object, appears to have been highly important. Hoffman, however, seems to have confounded the S. purpurea with the S. helix, and Mr. Curtis has followed him in his error; but the two species are now accurately distinguished. A new species is very properly styled S. Croweana: its properties are not valuable, and it has remained truly wild in Norfolk. The S. phylicifolia β L. forms, according to our author, a separate species, which he styles S. nigricans. S. laurina is also a new species, but nearly related to the last. The S. petiolaris is also new, sent by Dr. Dickson, with the last, as of British growth. The S. phylicifolia has been found in Britain.

'IX. Descriptions of four new Species of Fucus. By Dawson Turner, M. A. F. L. S.'

Our knowledge of the fuci is yet imperfect, for the appearance of these plants greatly varies at different seasons; and, in consequence of these changes, the same individual has been referred to many different genera. We regret that the author has not added the figure of the fucus fruticulosus, as he supposes his having engaged to introduce it has prevented its appearance in Mr. Stackhouse's third number. If we recollect rightly—for we have not the work before us—it is not inserted.

The first new species is the fucus ruscifolius, which greatly resembles the F. hypoglossum; but its claims to a specific distinction rest on the constant appearance 'of curious lines of concatenated veins.' These are quite pellucid, running from the midrib to the margins of the leaf in parallel lines, and intersected with joints. Other marks of distinction are added; but for these, and the remarks on what appear to be the organs of fructification in this species, we must refer to the volume.

The F. cranulatus is a species brought from Portugal, but found also on the shores of Dover: the latter, however, is arranged as a variety only, till it is better understood. This species forms a connecting link between the F. erispus and rubens. The colour, moreover, differs from that of every other British fucus: it seems perennial, and probably flowers in the autumnal months.

The third species is the F. clavellosus, which has been confounded with the C. kaliformis, though the latter is found on the western, and the former on the eastern, coast. The description of the last has been so modified, as to include the first; and few authors having seen both, the error was not

discovered. The fourth was found by, and is denominated from, Mr. Wigg. It is very rare, and its proper place is between the F. pedunculatus and asparagoides.

'X. Description of Callicocca Ipecacuanha. By Felix Avellar Brotero, Professor of Botany in the University of Coimbra, F.M.L.S.'

This is certainly the plant which affords the ipecacuanha of the Materia Medica—a subject on which botanists and physicians have been long in doubt. A full description is illustrated by a plate.

'XI. Observations on the Curculio Trifolii, or Clover Weevil, a small Insect which infests the Heads of the cultivated Clover, and destroys the Seed. In a Letter to Thomas Marsham, Esq. Tr. L.S. by William Markwick, Esq. F.L.S. With additional Remarks by Mr. Marsham.'

'XII. Further Observations on the Curculio Trifolii. In a Letter to William Markwick, Esq. F.L.S. by Martin Christian Gottlieb Lehmann, M.A. of Gottingen.

This destructive little animal is the curculio trifolii of Linnæus—in the amended entomology of Fabricius, removed to the genus attelabus. The description we shall select.

'Curculio Trifolii. Cur. ater, rostro porrecto, pedibus ferrugineis; plantis nigris.

'Long. corp. $1\frac{1}{2}$ lin.

'Habitat in trifolio.

'Descrip. Corpus atrum. Rostrum thorace paulo longius. Antennæ piceæ. Thorax punctulatus. Elytra striata. Pedes ferruginei, plantis semper nigris; est ubi tibiis nigris variat. Abdomen niveum.' P. 146.

This mischievous insect, whose history is given in the twelfth article, is devoured by many of the sparrow tribe, as, in its perfect state, it attaches itself to the bark of trees; but we are not yet sufficiently acquainted with it, to guard against its depredations.

'XIII. Description of Brotera persica and Mustelia eupatoria, two new Plants cultivated in the Botanic Garden of Halle, by Curt Sprengel, M.D. Professor of Botany in the University of Halle.'

These descriptions do not admit of abridgement.

'XIV. Observations on the Hinges of British bivalve Shells. By Mr. William Wood, F.L.S.'

Of this very curious paper it is impossible to convey the slightest idea by an abridgement, or without the assistance of the plates.

'XV. Catalogue of the more rare Plants found in the Environs of Dover, with occasional Remarks. By Mr. Lewis Weston Dillwyn, F.L.S.'

We find nothing of particular importance in this list of plants.

'XVI. Description of some singular Coleopterous Insects. By Charles Schreibers, M. D. Deputy Professor of Natural History in the University of Vienna.'

Of these insects, the lucanus æneus, the scarabæus proboscid-eus (belonging to Fabricius's second family of scarabæi), the cetonia Philipsii (scarabæus L.), silpha lacrymosa, clerus fasciculatus (attellabus L.), prionus lepidopterus (cerambix L.), cerambix giraffa and fichtellii, and scarites Schroferi, are from New Holland. The scarabæus dytiscoides from Brasil. The minuter observations would detain us too long, and can only be read with advantage in the author's own words.

'XVII. Description of Menura Superba, a Bird of New South Wales. By Major-General Thomas Davies, F. R. S. and L. S.'

We have already noticed this truly superb bird, and have nothing to add, except that the difference in form between the male and female seems to be very inconsiderable. The coloured plate is greatly superior to prior representations of the menura.

'XVIII. On the Doryanthes, a new Genus of Plants from New Holland, next akin to the Agave. By Joseph Correa de Serra, L. L. D. F. R. S. and L. S.'

The beauty, the shape, the height, and the general elegance of this flower, entitle it to particular regard; and the smallest parts appear to preserve the principle of life so tenaciously, that it may be easily propagated. The agave and the Fourcroea seem to have the nearest affinity to it.

'XIX. Observations on several Species of the Genus Apis, known by the Name of Humble-bees, and called Bombinatrices by Linnæus. By Mr. P. Huber, of Lausanne in Swisserland.'

This very elaborate paper, in the French language, extends to eighty-eight pages, of which we shall endeavour to give an account, as concise as is consistent with perspicuity; for much is new; and Réaumur, to whom we are indebted for all that we know on the subject, has left many facts undetermined.

We shall not stay to describe these animals particularly; but may remark, that naturalists seem to have greatly increased the number of species by not distinguishing the males from the females—the working bees of each sex from the others. The female alone is furnished with a sting; and hence the common error that humble-bees do not wound: the wound, however, is said to be slight, though we once felt it pretty severe from a bee much weakened. The females can dart their poison to some distance. It appears to be an acid, but does no injury without the puncture. Their characters, in general, are detailed very fully; and the author next describes all the species found in the

neighbourhood of Lausanne, *viz.* the A. lapidaria, terrestris, hortorum, and muscorum Linnæi. Four others are not referred to any systematic author's appellations. M. Huber has not been able to discover characters less fugitive and uncertain than the colour and the hairs; but he found, that, when the insects are old, they lose their brilliancy and colour, and that their hair grows grey, like that of animals. While the black hairs, however, become grey, the scarlet change to yellow and white. In time, these also are lost. Many other changes are mentioned, which tend to multiply, unnecessarily, the number of species, and to disguise those already known.

'I have remarked,' adds our author, 'an analogous fact among different species of ants. The males and females are born with wings. Soon after their copulation the males die, and in a few days the females lose their wings. On the most accurate examination of their nests, not a single winged insect is to be found. I do not know the number of days in which this mutilation is accomplished, but I believe it is not more than a month.'

The subterraneous cavities in which the nests of the humble-bees are found, and the formation of the cavity which they usually inhabit, are next described. A description of the subterraneous nests follows. In the early period, a single female only is traced, who appears to be the common mother. At a subsequent one, the females are numerous, and all the working bees are by no means neuters. They are, in general, larger than the males. The different species of humble-bees do not differ in their manners.

Our author next speaks of the wax of these animals; and we find the number of working bees less numerous than of the honey-bee, their materials less choice, and their works less delicate. The wax is brown and soft; the pollen, preserved in their magazines, yellow and friable: from experiment, it did not appear that this substance was necessary for the production of wax, but that it was furnished by their saccharine food very rapidly, and was probably a secreted fluid. The queen-mother produced this wax in a greater proportion than the working bees.

The fifth chapter is on the manner in which these bees employ their wax in building. The industry, activity, and the works which they complete, are in a greater proportion than their numbers; and, when confined, they employ with success the materials within their reach.—The sixth chapter is on their laying eggs. The working bees devour the newly-laid eggs with great eagerness, while the mother endeavours to secure them; and the species would be soon at an end, if this voracity continued; but, after two days, the eggs are no longer an object of their appetite, and the mother can leave them in safety.

The seventh chapter is on the worms of the humble * bee, and the food with which they are nourished. Their food seems to be the pollen, occasionally mixed with honey. In their growth—the subject of the following chapter—the cell is enlarged in proportion to the increase of size; but this is not owing to their feeding on its substance, but to the distension from the bulk. The injury done in this way to the cell, by splitting it longitudinally, is constantly and carefully repaired by the working bees.

M. Huber next describes the cocoons of silk, which the worms spin previous to their metamorphosis, their construction, and the manner in which the perfect insect escapes. In these respects, he corrects some errors in Réaumur's accounts. In the tenth chapter, he treats of the use of these cocoons when the bee has escaped. They divide this receptacle horizontally a little above its greatest convexity, and it then forms a truncated egg. The texture is close, and rendered more so by the wax with which they are covered. This structure adapts them for their future use—*viz.* that of holding the pollen and honey for their successors.

The eleventh chapter is on the males and females, and their situation subsequent to their fecundation. The males seem to live but a single summer; the females remain in a torpid state during the winter, and are revived by the early warmth of spring. They complete the object for which nature designed them, and leave a place for their successors.

Among bees, one alone is the queen, and the rest labourers, though there are many who, if properly fed, may become queens in their turn. The labourers, however, differ in their forms from the queen; but, among the humble bees, the prolific insects are equally or more active than the working ones; and the latter differ only from the former in being less in size. All the working bees are not neuters, but those designed for the continuation of the species are hatched later in the season. The others are occasionally impregnated; but they produce males only, from which the breeding bees become mothers, and continue the species. The queen, we know, is increased in bulk by a peculiar nourishment, or, as our author styles it, *royal bouillie*. His reflexions on this subject are too singular to be overlooked.

'It is not indeed impossible that one kind of food may be more favourable than another to the increase and perfection of the sexual organs, and the form of the individual. But how can we conceive that

* Is not this appellation erroneous? Should it not be *bum*ble-bee, from the noise it makes when on the wing? It is certainly so called by the vulgar in many country places. Though the epithet *hum*ble, or *hum*ming, in the present instance, may be derived from the same buzzing.

it will change the passions, the instinct, and the manners, of insects originally alike? How can we conceive that a female destined to enjoy love, to feel jealousy, to be revengeful and idle; that such a female, or rather the fœtus of such an insect, can become a working bee, zealous for the defence of the community; deprived of the pleasure which nature refuses to none of her children, though freed from the pains of a laborious delivery; full of address; dexterous in taking care of the young, in collecting honey from the flowers; able to make wax; to construct the pyramidal bases of the hexagonal cells; to guard the queens, whose rivals they might have been, had the organs of generation been sufficiently developed; and charged to destroy, at a given period, the males, who could not then have excited their jealousy? These are real metamorphoses: will chemistry explain them? will it ever explain by what magic the difference of nourishment can produce so complete a change in the instincts, the tastes, and the habits, of the insect? We may still doubt, till reason and philosophy enlighten us.'

The journal follows, and some 'conjectures' conclude the work; but we have already rested on it, our readers may perhaps think, too long: we differ from them; for the account is curious, and in a great measure new.

'XX. Botanical Characters of four New-Holland Plants, of the natural Order of Myrti. By James Edward Smith, M.D. F.R.S. P.L.S.'

This may be considered as a supplement to a paper in the third volume of the Transactions. The species are leptospermum grandifolium and imbricatum, melileuca squarrosa, and eucalyptus marginata.

'XXII. Description of a new Species of Viola. By Thomas Furly Forster, Esq. F.L.S.'

This is the viola concolor from North America; but, as it has flowered very seldom, it is not clear that it is really a viola. The whole genus is confused, and crowded with species which do not probably belong to it. The V. lanceolata of Gmelin is not the same flower as Kalm distinguished by that name in Canada; and the V. grandiflora of the gardens is not the same to which Linnæus has given this trivial appellation. It is a new species, which Pallas brought from Siberia, and is called, by our author, V. Pallasii.

'XXIII. Description of the Fruit of Cycas revoluta. By James Edward Smith, M.D. F.R.S. P.L.S.'

It is impossible to give an adequate idea of the magnificent spectacle which this fruit affords, without the plate; and this must be much inferior to the fruit itself, though drawn with great spirit and accuracy by Miss North. The fruit ripened at Farnham, in the collection of the bishop of Winchester. The plant itself resembles the zamia, and forms, with it, a natural family between the palmæ and filices.

'XXIV. Species of Erica. By Richard Anthony Salisbury, Esq. F.R.S. and L.S.'

Our author, who prefers the Latin language as the vehicle of communicating his observations, does not profess an entire monography of the heaths, but to correct the idle, and often erroneous, appellations of the gardeners, which Wildenow has sanctioned in his late publication. The common heath is referred to a new genus called calluna. Another new genus is the salaxis, which contains four species resembling the erica scoparia. The species are well arranged, and described with true botanical accuracy; and the synonyms selected with great precision and propriety. The whole article is excellent, but will admit of no analysis.

Some facts from the minutes of the society, a continuation of the catalogue of the society's library, and a list of the donors, conclude the volume.

ART. IV.—*The Transactions of the Royal Irish Academy. Vol. VIII.* 4*to.* 1*l.* 4*s. Boards.* Payne *and* Mackinlay. 1802.

THIS volume is divided, as usual, into three departments; those of science, polite literature, and antiquities. In the first, a very considerable proportion is furnished by the president, Mr. Kirwan, himself a host, and whose productions always bear the stamp of judicious discrimination and scientific research.—We shall follow the articles in their order.

'I. Observations on the Proofs of the Huttonian Theory of the Earth, adduced by Sir James Hall, Bart. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

The geologic theory of Dr. Hutton is not new in our journal. We early noticed it, and entered our protest against it, founded on a close observation of different countries. Mr. Kirwan, Mr. Jamieson, and almost every philosopher of eminence, has joined in this opposition, with the exception of Mr. Playfair and sir James Hall. The defenders of Dr. Hutton adhere to him with a firmness, almost bordering on pertinacity; and, though the latter dissents from Dr. Hutton in some particulars, he still appears a strenuous assistant. Mr. Playfair's sentiments we shall notice in our account of his work lately published; and sir James Hall we shall attend to in our review of the fifth volume of the Edinburgh Transactions.

The present article relates to sir James Hall's experiments, detailed in the third and fifth volumes of the last-mentioned collection. The first is an attempt to assimilate the fusion of quartz, in felt spar, to the solution of salt in water, which is separated by freezing the water. The analogy appears, how-

ever, to be very imperfect, as Mr. Kirwan has clearly shown. Another experiment relates to the different phænomena of glass, when cooled after melting, either slowly or rapidly: in the first case, it loses all its vitreous properties, and becomes opake, white, and refractory; in the second, it resumes them. In fact, in the former instance, the glass is decomposed; the flint separates, and gives the milky colour, in consequence of the volatilisation of some of the alkali: in the latter, there is no time for the separation of the flint to take place.

'Granite is an aggregate stone consisting of quartz, felspar and mica; of these the most fusible is undoubtedly the felspar, and the quartz the least; let us then to indulge the worthy baronet suppose all three in perfect fusion in a high degree of heat, and afterwards slowly cooled, and thus each (though vouched by no experiment) gradually reproduced; the quartz, with the exception of the proportion thereof which enters into the composition of felspar and of the mica would undoubtedly crystallize first on the smallest diminution of heat, and, being congealed in a medium still in a liquid state, I do not see why it should not form regular crystals, which nevertheless scarce ever occur in granite except in cavities. Over this, and after a considerable interval of time, the mica should also be regularly crystallized, and last of all, the felspar should coalesce and congeal, (at least in the baronet's supposition) in regular crystals; now as the crystallisations of these three species of stone take place each at a distinct portion of time, each should occupy also a distinct portion of space, the first set of crystals being lowest, the next over that and the last uppermost, as we find to happen when salts of very different solubility and yet in equal quantity are dissolved and crystallised in water, or when substances of different degrees of volatility are sublimed by fire. Now, among the immense masses of granite that have been observed and examined in various parts of the globe, not above half a dozen have occurred in which the three constituent parts of granite were regularly crystallized, very few in which distinct layers of each were seen, and none at all consisting of distinct regular crystals of each, superimposed on each other. On the contrary in far the greater number of granitic masses the three above named constituent masses lie intermixed with each other in the most confused and irregular manner, and without any appearance of regular crystallization; insomuch that none can say, from bare inspection only, which was crystallized first, and which last,—nay granitic masses not unfrequently occur, in which it is evident that the mica must have crystallized contemporaneously with the quartz, for in breaking the quartzy part flakes of mica are found within it. See 6, Sauss. § 1621.

'Lastly, I must add, that even on the supposition that distinct crystals of quartz, felspar and mica could be produced by fusion, they still would be far from resembling those we are acquainted with, which essentially contain some particles of water, as I have elsewhere shewn.' P. 9.

Some other very decisive observations on this subject follow, on which we need not enlarge. Indeed, we are less inclined to

do so, as our ideas of the formation of granites differ from those of Mr. Kirwan; and we have already stated our leading principles in reviewing that author's Essays.

The experiments published more lately are next the object of Mr. Kirwan's remarks. Grunstein was first vitrified by a strong heat, and rapidly cooled. It was first softened, and then soon became hard; at least, it was found to resemble porcelain, and to be more refractory than before. When this glass was cooled slowly, it looked like whinstone: the fracture, instead of being partly striated, and partly foliated, was rough, stony, and crystalline, with a number of shining facettes intermixed, '*and a few crystals in the cavities, produced by the air-bubbles.*' In these experiments, Mr. Kirwan shows very satisfactorily that some decomposition actually takes place in the first instance; and, in the second, that it is not a vitrification, but a change to a kind of enamel, the nature of which he explains. We should add, that the circumstance of the cavities would be decisive, as they are never found in whinstone, so that it could not be volcanic. The shining facettes are only incipient crystallisations, when the affinity of the alkali is lessened, and the earths begin to assume their solid form. But, notwithstanding these appearances, the distinctions between natural whins and these artificial ones are so striking, as to leave no difficulty in the decision. The second criterion we have long since pointed out, as a decisive mark of distinction between traps and lavas.

'1° The natural whins, particularly amygdaloids (vulgarly called toadstones) frequently contain calcareous spar and zeolyte; now as the former contains fixed air, and the latter a notable proportion of water, I hardly think sir James, who professes not to agree with Dr. Hutton in all points, will allow these to have been vitrified or fused.

'2° The natural whins, according to Dr. Kennedy's statement, lose five per cent. of water and other volatile matter when heated to redness. It is not said whether the artificial lose any part of their weight by such treatment, but it is plain they would not, since even the lavas of Catania and Piedemonte, though of ancient date, lost none, as Dr. Kennedy expressly notices, and has thus afforded an excellent criterion for distinguishing the long contested origination of these substances.

'3° As sir James has neglected giving a complete account of the external characters of the natural whins, which were the subject of his experiments, as also of the regenerated or artificial whins derived from them, and as I have not myself seen them, it is difficult for me to compare them with each other, and would indeed be impossible if some account of them had not been given by Mr. Pictet in his valuable Journal Britannique, copied into the 5th vol. of the new Rozier's Journal. p. 313. It is the result of the examination both of the natural and artificial whins by the Society of Natural History at Geneva.

'As to the natural grunstein, No. 1, they remark that it betrays

not the least mark of an igneous origin, but that the whins which sir James produced from it had every distinctive character of a lava, and even of a porous lava.

'The basalt (or rather trapp) on which the castle of Edinburgh stands is of a compact structure; the artificial produced from it, sir James tells us, so greatly resembles it both in colour and texture that it would be difficult or perhaps impossible to distinguish them, but for a few minute air bubbles, distinguishable in the artificial. Neptunists will however consider this as a leading character of distinction. The mineralogists of Geneva add, that the colour of the artificial is deeper, and its hardness greater than that of the natural. If the specific gravity and other characters of both were given, it is probable that other differences might be perceived. It is only in these characters that any difference can be expected, as the internal composition must be the same in both.

'Of the remaining artificial whins I can give no account, their external characters having been omitted; I cannot however pass over the general inferences that sir James deduces from his experiments, namely, "that the arguments against the subterraneous fusion of whinstone, derived from its stony character, seem now to be fully refuted," for not to repeat what has been already said, that many of them contain substances whose existence is incompatible with that hypothesis, I must farther add that the upright state in which many of them exist, for instance, the basaltic pillars of Staffa, and of the Giants Causeway, and of many other countries, the basis they rest on, sometimes granite, sometimes gneiss, sometimes coal or limestone, and the total absence of all signs of the operation of fire, forbid us to entertain any doubt of their production in the moist way. Nay the college of Dublin now possesses fragments of basaltic pillars in which marine shells are imbedded; if such evidence can be resisted it is in vain to seek for greater.' p. 23.

'II. An Illustration and Confirmation of some Facts mentioned in an Essay on the primitive State of the Globe. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

Our author, in a former essay, had contended that some portion of land had probably emerged from the waters, before the creation of fishes. This position has been denied. In proof of the Mosaic account, Mr. Kirwan alleged that no petrifactions were found incorporated in masses of stone, in countries elevated more than 8500 or 9000 feet above the actual level of the sea. Since that time, it has been asserted, by the author of the *Histoire du Monde primitif*, that Don Ulloa found shells imbedded in stones, at the height of 14220 feet above the level of the sea in Peru; and Don Ulloa has asserted the same in his late work—*Mémoires philosophiques*, &c. It is, then, Mr. Kirwan's object to show, that, in reality, the spot alleged is not nearly so high; or, whatever be its height, that these shells are the remains of the deluge. The former point is rendered highly probable, by comparing the different parts of the description; and the error is supposed to be derived from a

mensuration of the height by the barometer. Quicksilver was not, at that time, purged of air, by boiling in the tube; and a very little air remaining, would expand greatly at that elevation, and proportionally depress the mercury. The place where the shells are found cannot, when the requisite deduction is made, be more than 8200 feet above the level of the sea. The second position is proved, by petrified wood being traced with the shells; and La Pérouse, who found shells on Mont Perdu, at the height, it is said, of nearly 10,000 feet, found with them also the petrified bones of marine animals.

'III. An Essay on the Declivities of Mountains. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

This is a very curious paper. The western sides of mountains are, in general, the steepest, when the mountain runs east and west; and the southern, of those that run north and south. These particulars our author explains very minutely, from the double motion of the ocean; *viz.* that from east to west, the present course of the tides; and the other from north to south. As, from its extent, we cannot enter into the detail, our objections to this second direction of the currents must be reserved till some future opportunity. We have often suggested, in this journal, that the direction of the bays, and inland seas, seems rather to show a motion from the equator to either pole; and this motion, combined with, or in opposition to, that of the tides, will, we think, explain all the varieties met with more satisfactorily than our author's system. The whole of this essay is particularly ingenious and scientific.

'IV. Of Chymical and Mineralogical Nomenclature. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

Mr. Kirwan's remarks are chiefly designed as a defence of his own nomenclature, and a reply to the objections offered by the French chemists to his changes. We fully agree with him in one point, that the changes have been too general and too rash. Like brother Jack, in tearing off the lace, they have injured the cloth; and, to be as unlike that rogue Peter as possible, they have assumed a new garb, which requires years to study. When learnt, another lesson will remain; *viz.* to re-acquire the language which they have thus supplanted; or the works of Stahl, Beecher, and Boyle, with all the chemists of the old school, must be renounced. We have already noticed this subject, however, in our review of the new edition of the Edinburgh Pharmacopœia, which has lately reached us; where Herod is out-Heroded, and reform is carried to its highest pitch—almost, indeed, to the confines of confusion. Mr. Kirwan's remarks are highly proper; and, but that they would lead us too far, might be the subjects of some particular observations. But while we admit the merit of these remarks, and, in general, of Mr. Kirwan's improvements of the nomenclature, we may be

allowed to question their expediency; and, while the French school of chemistry, with its language, retains its power, it may perhaps be better to err with this establishment, than to be right alone. To be generally intelligible, we should use common language.

'V. A Description of a reflecting Level or an artificial Horizon for taking Altitudes of the celestial Bodies, &c. on Land by Hadley's Quadrant, with some Remarks on different Levels. By the Rev. James Little.'

The principle of our author's improvement is the adaptation of an artificial level to Hadley's quadrant, to take altitudes on land. In using it at sea, the water affords the level. The instrument is ingeniously contrived, and promises to be highly useful. It is impossible to convey an adequate idea of it without the plate.

'VI. On the Naturalization of Plants. By John Templeton, A.L.S. Communicated by the Bishop of Clonfert.'

Our author gives some highly-proper and judicious directions respecting the method of naturalising plants to soils and temperatures different from their own. These we cannot abridge; but may remark—what our author has perhaps not so fully insisted on as he might—that plants may be rendered capable of sustaining considerable degrees of cold. Cold alone is seldom very dangerous; but the bad effects arise from cold succeeding a moist or rainy period. We have seen geraniums bear the winter without shelter, by only covering the earth around with a perforated board, to admit the rain but sparingly. Mr. Templeton has not, however, wholly omitted this part of the subject; and we shall select what he has said respecting climate.

'The laurustinus is one of those plants that were introduced to Ireland before green-houses were known, consequently planted in the open ground, and experience shews that it is seldom hurt by frost. By it we find that some plants, which to appearance are not fitted for our climate, do yet outlive our winters; and that, without a knowledge of their native stations, we may sometimes suppose plants to be tender which are really hardy: thus the laurustinus is unhurt by frost in Ireland until the cold exceeds that of its own climate. The buddlea globosa and fuschia coccinea are other instances of plants, that without a knowledge of their native climate, Chili, we would not suppose capable of being naturalized to ours. Yet is the buddlea seldom injured by our cold, and the fuschia, although killed to the ground by the winter's cold, sends forth abundance of shoots which attain the height of three feet in summer, and are decorated with its elegant flowers, which are larger and much more brilliant than ever they are when confined in a house.

'And there is little doubt but [*that*] many plants of Chili, and even those which grow within the tropics, when found near the elevation of perpetual frost, would bear the cold of Spitzbergen; for on the tops of mountains are found the plants of the plains of more northern latitudes. Thus is the salix herbacea of Lapland and Spitzbergen found

on the tops of Mourne mountains at about the elevation of 2,500 feet. On the Serra of Madeira, latitude 32°, 38′, and elevated 5,162 feet, is found the erica arborea, of the neighbourhood of Genoa, latitude 44°, 25′. Therefore as the temperature which prevails at the elevation of 5,162 feet, in latitude 32°, is found nearly to correspond with that of 51° north: the erica arborea, which grows at that elevation in latitude 32°, will find a climate suited to its nature in latitude 51°. But as the before mentioned plants have a considerable range of latitude, it may be cultivated farther north when the soil and situation are favourable. At James Holmes's, esq. on the eastern shore of Carrickfergus Bay, four miles north of Belfast, there is a plant in the greatest vigour at the present time (July 1799) which has now stood uninjured three as severe winters as Ireland ever experienced, viz. 1794, 5, 1797, 8, and 1798, 9.' P. 124.

'VII. Description of an Apparatus for impregnating Water and other Substances strongly with carbonic acid Gas. By the Reverend Gilbert Austin, M.R.I.A.'

This union is effected by compression, by means of a piston, which combines a much larger portion of fixed air with the water, than in the usual method. Some force is always requisite, for very little air unites with water, from affinity; but, in Nooth's machine, the only power employed is the force of the air issuing through the capillary tubes.

'VIII. Analysis of Turf Ashes. By Lord Tullamore, M.R.I.A. Communicated in a Letter to the Reverend Doctor Elrington.'

It was, we believe, generally known that turf-ashes did not produce kali, or soda, in a pure state; and we once encountered some unexpected opposition, from offering this as an objection to an author's remark. Lord Tullamore found the *white* peat exhibited no separate alkali, but sulphat of soda only: the red ashes contained muriat of soda. In Mr. Jamieson's experiments, the salt appeared to be sulphat of magnesia.

'IX. A Memoir of the Mines of Glan, the Royalty of Richard Martin, Esq; By Monsieur Subrine, Engineer to the King of France.'

This memoir contains a very minute description of different strata; but it cannot be easily followed in an abridgement; and the observations are chiefly of local importance.

'X. Remarks on some sceptical Positions in Mr. Hume's Enquiry concerning the Human Understanding and his Treatise of Human Nature. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

The singular skepticism displayed in Mr. Hume's metaphysical works has long engaged the attention of numerous philosophers; and, in more than one tract, he has been completely refuted. Mr. Kirwan, with whom we do not always coincide on metaphysical subjects, reasons in this article with singular

force and perspicuity. The opinions of Mr. Hume, which he attacks, are the following:—

'1°. That beings of any kind may start into existence without the intervention of any efficient cause:

'2°. That the connexion between phænomena and their supposed causes can in no case whatsoever be traced by reason, but in all cases is inferred merely from experience:

'3°. That inferences from experience are themselves unsupported by any solid reason, for that none can be assigned for expecting similar effects from similar causes, but the mere custom or habit of seeing them conjoined:

'4°. That belief is not an act of judgment, but a particular species of sentiment or feeling:

'Lastly, That fallacious as all experimental reasoning may be, yet the violations of the laws of nature (the existence of which laws can be known and inferred only from experience) cannot be rendered credible in any case by any human testimony whatsoever.' P. 158.

In the refutation of the treatise 'On Miracles,' a work which Mr. Hume contemplated with peculiar complacency, Mr. Kirwan follows him step by step: the most prominent passages, the hinges on which the whole hangs, and which are consequently often repeated, he replies to in the following very satisfactory manner:—

'1°. A constant fallacy lurks in our author's application of the term *experience;* sometimes he applies it to our own past or actual experience of which we have a metaphysical certainty: sometimes to that of others only, and not our own, of which we can have at most only a moral certainty; and sometimes he denotes by it a mere conformity to past experience, either of our own or of others, which is often attended with physical or moral certainty, and often with bare probability: these different senses he dexterously shifts and employs as best suits his purpose.

'2°. The radical error that pervades the whole of this essay, and is indeed the corner stone on which his whole theory must rest, even if the equivocal use of the term *experience* had been avoided, consists in ascribing the same immutability to the laws by which corporeal nature is governed, as to those which are inherent in the nature of moral agents. Knowledge of the former is conveyed to us chiefly by experience; that of the latter arises partly from experience, but being homogeneous with, and analogous to our own feelings, partly also from consciousness: the former are clearly discerned to proceed from the power and wisdom of the author of nature, which experience itself shews us not to require their absolute immutability in all possible circumstances. Thus no law has ever been considered less mutable than that of the descent of bodies when unsupported, yet exceptions to it have at last occurred, not only through the now well known, but hitherto inexplicable, powers of magnetism and electricity, but also in the adherence of the hardest polished bodies to each other; and to what degree, on what occasions, and in what circumstances the most general laws of nature may still be found to vary, or to have varied,

we are profoundly ignorant. But with regard to the laws that originate in the nature, and are essential to the constitution of rational agents, particularly of the human kind, the case is very different; though they also often restrict, qualify, or modify each other to a surprising degree, yet the extent, to which, in consequence of these modifications, the apparent anomalies of human conduct can reach as long as men retain the use of their reason, is perfectly known, and aberration beyond this limit being inconsistent with rational nature must be deemed impossible.

'If therefore the laws of physical and those of moral nature be in any case so opposed to each other, that both cannot be reconciled, but one or other must be deemed to have been infringed, it is easy to discover which of them, the one being absolutely, the others only hypothetically inviolable, namely, in certain known circumstances.' P. 176.

'XI. Synoptical View of the State of the Weather in Dublin in the Year 1800. By Richard Kirwan, Esq; LL.D. F.R.S. and P.R.I.A.'

The highest point of the barometer, 30.66, was observed on the seventh of July and the ninth of October, the wind, at each time, in different parts of the south-west quarter. The lowest point was 29.7 on the eighth of November, wind variable, E. S. and N. W. The mean of the year was 29.978: the thermometer was from 81° 5′ to 23°; the mean 47.819: the mean of April 45.65; the rain, 23.567. The rainy days were 197; of which, snow fell on ten. April and June were the most rainy months, July and August the dryest. The prevalent winds were from the west. In the year 1801, the barometer, when at its highest point, rose to 30.76 on the seventh of April, wind west: at its lowest, it was 28.80, the twenty-sixth of September, wind north; the mean 30.032. The thermometer was from 75° to 23°; the mean 29.278: the heat of April 45.205. The rainy days were 175. The months in which least rain fell were April, June, and August, in which last there was none. The other months, particularly July, were very wet: the quantity of rain, however, was only 21.9658. The prevalent winds were westerly. Thunder and lightning occurred in July and October.

'XII. Observations on Calp. By the Honourable George Knox, M.R.I.A.'

Calp is the black quarry-stone of Dublin, resembling in its properties argillaceous earth. A hundred parts, however, contain 68 of carbonate of lime, 18 of silex, 7½ of argil, 3 of carbon and bitumen, 2 of oxyd of iron, ½ of water. This is, nevertheless, scarcely consistent with what is said in the first part of the article, that it does not burn to lime. Calp is found under successive strata of limestone; and the latter seems to degenerate imperceptibly into it. Most of the limestone in this neighbourhood presents sulphurated hydrogen. The Lucan waters con-

tain hydrogen and azotic gas. This latter offers, in a gallon, of carbonated lime, 11 and a half; of carbonated soda, 19 and a half; of sulphur, 8; muriat of soda, 2; carbonat of magnesia, three-quarters. The carbonat of lime is held in solution, by an excess of carbonic acid, amounting to about sixteen cubic inches in a gallon. The sulphur is in a state of sulphurated hydrogen.

'XIII. On the Orbits in which Bodies revolve, being acted upon by a centripetal Force varying as any Function of the Distance, when those Orbits have two Apsides. By the Reverend J. Brinkley, A.M. Andrews' Professor of Astronomy in the University of Dublin.'

This article will not admit of abridgement.

As we find it impossible to conclude the volume in a single article, we shall vary its contents, by turning to the department of polite literature, reserving the antiquities for the close. This class contains two essays by Mr. Preston; *viz.* 1. 'On the Choice of Subjects for Tragedy;' 2. 'Reflexions on the Peculiarities of Style and Manner in the late German Writers, whose Works have appeared in English, and on the Tendency of their Productions.'

The object of the first essay is to oppose an observation in a periodical journal, that recent events are not the proper subjects of tragedy. In opposition to this remark, the examples of Æschylus and Sophocles, of Seneca in Octavia, of Shakspeare, in the wars of the houses of York and Lancaster, Henry VIIIth, &c. of Dryden in Amboyna, of Rowe in Tamerlane, &c. are successfully adduced. The law was originally promulgated, with a reference to the subjects of the epos.

In the second essay, Mr. Preston combats, with singular force and success, the strange conduct of the modern German dramatists, and ridicules the sentimental bombast and the absurd improbabilities of their stage, while he reprobates, in the most indignant style, their artful sophistry, their apologies of the worst crimes, the varnish of sentiment, with which they gloss over the most atrocious villanies. Their plagiarism from the English authors is properly noticed. Mr. Preston tells us, that he is unacquainted with the German—a circumstance we should have otherwise discovered, and which has led him into some trifling errors, though it has prevented him from detecting some absurdities still more striking, some artful glosses of a worse tendency, than any which he has noticed. The most terrific incident of Burger's Leonora occurs in the 'Suffolk Miracle.'

'It may be remarked, as another peculiarity of the German writers, that amidst their love of horrors and their affectation of the sublime, they have had the singular felicity of finding sources of the great, the terrible and the pathetic in all that is commonly held to be

little, contemptible and ridiculous; and, descending a step below domestic tragedy, they have introduced a new kind of drama, which, for want of a more appropriate term, may be called *straw tragedy*, and which climbs into the garret, or dives into the cellar, for its heroes and heroines, and is founded on the loves and heroic acts of beggars and bunters, of thieves and cut-purses, of tailors and seamstresses; on such transactions as an insurrection of journeymen against their employers, which has furnished Mr. Foote with his 'Tragedy for warm weather.' The incidents, which to an English writer appear highly ludicrous, and become the grounk work of a Beggars' Opera, are adopted by a German and become the subject of an horrible tragedy, full of portentous incident and deep distress.—Macheath and his gang soar into the clouds of bombast; they moralize on the inequality of human conditions, and consider themselves as the vicegerents of Providence, commissioned to rectify the caprices of fortune. Polly Peachum and Lucy Lockitt perplexed in the extreme, between disinterested love and tender friendship, resolve, at the same moment, on the most heroic sacrifices, and mutually determine, each to devote herself for the happiness of her lover and her rival. The combat of friendship and generosity is carried on, through many high-wrought scenes; at last, the young ladies agree to end the sentimental contest, by poisoning themselves and their lover, and all three expire together embracing and embraced. Lockitt informs against old Peachum, who is broken on the wheel, for the amusement of the audience. Macheath's band set fire to the prison, and so the piece concludes.' P. 24.

'This ambitious spirit of the German writers occasions, in all their productions, another trait of family resemblance, which is excess; a straining at something superlative, an attempt to surpass nature, that produces only contorsion and grimace. Their incidents are in excess, of horror, and of burlesque, that exhibit revolting spectacles or contemptible farces. Their personages are also in excess; there is nothing of the just size or proportion of nature, but all are giants or dwarfs. There is no true delineation of character. All the lines are aggravated, all the features are overcharged into caricature. Their heroes and heroines are Bedlamites; their comic characters merry Andrews and cinder wenches. When they would depict passion, excess, excess still predominates. They want the keeping, the reserve, the chastity of manner inseparable from probability and nature. Their virtues attempt to rise to something super-human, and fall into their contraries; they are lost in the clouds of romance and extravagance, or involved in the mazes of chimerical and unintelligible refinement. Their dramatic exhibitions of vice are monsters redeemed by no virtue; they carry their malignity and guilt to an excess unexampled in the history of our species, and only to be found in what fancy may have feigned of the diabolical nature.

'Abominable, unutterable, and worse
Than fable ever feigned or fear conceived.
Gorgons, and hydras, and chimeras dire!

The unwearied predilection for a display of the most atrocious crimes is peculiarly characteristic of the German muse, and is naturally con-

nected with what we have already noticed, a fondness for the exhibition of dreadful spectacles,

'Verbera, carnifices, robur, pix, lamina, tædæ.

'The want of moderation is particularly observable in the affectation of excessive feeling, of tenderness and sensibility in the extreme; of *naïveté* and simplicity, without bounds. Innumerable instances of this occur in most of the German compositions with which we are acquainted. This sentimental style, this rage of being very very natural, even to a degree of artificialness that is disgusting, predominates too much in the best German writers, such as Gæthe and Wieland, and abounds in almost every page of Kotzebue. The German writers, not satisfied with this display of excessive tenderness and sensibility, seem to consider the representation of passion as the great business of a poet, and the impassionated vehement style as his great perfection; and in the attempt to pourtray passion and feeling there is no discretion; these writers are all for a raging vein, a part to tear a cat in. They tear the passion to tatters, to very rags. It is not merely that sorrow is sunk, in such a superabundance and complication of calamity, such an excess of torment as real life never experienced, and human nature could not endure; that love is sublimed into frantic ravings and fiend-like jealousy, and breathes nothing but poison, poniards and self-destruction; that in the magnanimous, the heroic, the fierce, the vindictive, all is effort, and you perpetually see the writer standing on tip-toe, strutting and straining to reach something extraordinary; but the Germans, in their pursuit of the sentimental and impassioned, write, as if they sought to persuade themselves and their readers, that the indulgence of passion is the great business of life and the great privilege of humanity.' P. 29.

Our author moreover—and his remarks merit particular attention—finds in the German dramas those innovating principles, to which all our late misfortunes may be traced. The restraints of law, of government—the gradations in the ranks of social order—the unequal distribution of property—are the subject of perpetual declamation and resistance.

'Every motive is inculcated, which may induce men to be discontented, with the government under which they live, or, indeed, with any government, and to become active partizans of anarchy and disorder. The miserable condition of the many, the luxury, the pride, and avarice of the few, the insolence of office, the corruption of courts, the crimes and vices of kings and sovereigns, the wickedness and oppressive arts of their ministers, are themes of constant declamation, and are painted in the blackest shades of exaggeration. Many of these things we may potently believe, but we hold it not honesty to have them set down. The precepts of morality, the rules of decorum, established customs, received opinions, and even the principles and sanctions of religion are treated with contempt, and exploded as vulgar errors, and priestcraft, fitted only to impose on weak understandings, and overawe little minds. The doctrine of absolute decrees and fatalism, the irresistible power and unquestionable dominion of pas-

sions are inculcated; and their influence and sway held up to view, as a full excuse for the broadest deviations from rectitude, the grossest enormities of conduct. The heroes are robbers, cut-throats, suicides, poisoners and parricides. The heroines are devoid of chastity, the slaves of passion, fearless of shame, unawed by God, they talk blasphemy and call it sentiment. The blasphemous exclamations against Providence, in the Leonora of Burger, the ferocious and criminal rhapsodies of Charles de Moor and his associates, in the Robbers, and particularly the Minister throughout, may serve to establish and illustrate my assertions. In fact, the writers of the German school seem to imagine, that, as the imitative arts have the physical power of representing objects good and bad, pleasing and hideous, so, their professors have the dangerous privilege of exhibiting to public view every object, that lies within the compass of physically possible representation, without regard to the principles of sound morality, or the rules of correct taste, which forbid the representation of some things, as licentious, and criminal; of others, as too horrid and disgusting,' P. 44.

These are strong colourings; but, on the whole, they are fair representations, and this essay merits considerable commendation It is, perhaps, too much dilated, and wants that comprehensive energy which would make it more striking, which would add momentum and effect to doctrines which require, in these times, the strongest support. We have dwelt longer on it, in order to extend, if possible, the sphere of opinions so truly judicious, at a period so necessary for their propagation.

(To be continued.)

ART. V.—*Commentarj intorno all' Istoria della Poesia Italiana, ne' quali si ragiona d' ogni Genere e Specie di quella, &c.*

Commentaries on the History of Italian Poetry; containing an Examination into its different Orders and Species, written originally by G. M. Crescembini, and re-published by T. J. Mathias. 3 *Vols.* 12*mo.* 1*l.* 4*s. Boards.* Becket. 1802.

FEW writers in the class of polite literature have composed more voluminously than Crescembini; and still fewer of those who have composed so voluminously, have either deserved or obtained the same success. The Commentaries here re-published by Mr. Mathias constitute but a part—yet, perhaps, the most entertaining part—of a work composed by Crescembini, in six volumes, quarto, of which the third edition was published at Venice, in 1731, by Lorenzo Basegio, and entitled *Istoria della volgar Poesia*—History of Tuscan or Italian Poetry. These Commentaries are introduced by an address from Mr. Mathias to poetic and learned English readers: it is written

in the Italian language, and with his accustomed facility and enthusiasm for Italian literature. To this is subjoined a life of the original author, composed by the abate Michel Giuseppe Morei, from which we shall select the following narrative.

Crescembini was born October 9, 1663, of a noble family, in Macerata: he was christened Gio. Maria: but, being in after years displeased with so ungrammatic a termination in his name, he changed it to Gio. Mario. He received his education in a school of the Jesuits, in his own country; and, having afterwards resided with an uncle at Rome, who had acquired much reputation as a barrister, he initiated himself into the profession of the law: but his attachment to more pleasant studies prevented him from paying a requisite attention to this abstruser science; and, in spite of the admonitions of his uncle, and the prospect of success which was fairly presented to him, he soon withdrew from the bar altogether, and totally devoted himself to polite literature. He now became acquainted with a variety of men of letters, both of his own age and more advanced in life, and especially with Vincenzo Leonio, a man deeply versed in the sciences, and whose philological labours are well known and admired, even in the present day. It was a custom with Crescembini, and many of his literary friends, to retire in the summer evenings from the city, into some sequestered spot in its vicinity, and there amuse themselves with an alternate recitation of some favourite pieces of Italian poetry. It happened that, during one of their meetings, a companion, whose name is not recorded, was so transported with the beauty of a light pastoral effusion, which was, on this occasion, rehearsed, that he suddenly exclaimed, 'Methinks we have this day recalled Arcadia into existence.' The exclamation was heard with rapture by every one; and Crescembini was so struck with it, that he immediately began to consider of planning, in conjunction with his friend Leonio, an academy which should bear the name of Arcadia, and the members of which should call themselves Arcadian shepherds, and should each assume a name descriptive of some place in this region of ancient poetry. The institution was soon completed; and was opened October 5, 1690, by a convention of fourteen of the most renowned scholars of the city of Rome, of whom the greater part have obtained immortal fame by their writings. Their first academical meetings were held, either in the forest of the Padri Minori, on Mount Gianicolo, or in that of St. Peter, in Montorio; and so universal was the applause with which these first attempts were received, that many of the chief ranks in literature and nobility contended for the honour of being admitted members of the institution. All Italy was pleased with the idea: Crescembini, who was universally regarded as its founder, was elected keeper (*custode*) of this new establishment. A purer taste, derived

from its labours and exertions, was soon generally diffused throughout the whole country; and innumerable associations of a similar kind, on both sides of the Alps, were speedily produced, holding a communion with the parent lodge, submitting to its authority, and readily receiving its laws. The life of Crescembini was devoted to a promotion of the prime object of this philological establishment; and the learned Commentaries, of which the present work consists, were written, in conjunction with many other exercises of a like nature, with this express view. Crescembini composed also in verse, as well as in prose: but, notwithstanding the purity of taste, and excellence of fancy, which are displayed in all his productions, his poetic effusions have been uniformly regarded as inferior in merit to his prose compositions. His volume of Rhymes, however, which was published under the title of Arcadia, was considerably prised in its day, and even attained a third edition. About the middle of life, he entered into the church, and was elected canon of Santa Maria, by pope Clement XI, who, as well as his two successors, Innocent XIII and Benedict XIII, successively testified for him the highest esteem and friendship. Crescembini had the honour, moreover, of a very extensive foreign connexion and patronage; and among his correspondents were the king of Portugal, the queen of Poland, her son prince Alexander Sobieski, Cosmo grand-duke of Tuscany, the elector of Bavaria, several of the dukes of Parma, prince Eugene of Savoy, Zondodari grand-master of Malta, and many others of equally elevated rank. He died unexpectedly at Rome, March 8, 1728, universally lamented, after having been for thirty-eight years keeper of the Academy of Arcadia.

The work before us is divided into six books, and each book sub divided into a great variety of chapters. Book I treats of the origin of the Italian or vulgar poetry, and examines, at full length, its orders of versification, of rhyme, and style. Book II investigates the different kinds of lyric compositions which passed from Provence into Italy. Book III examines the different kinds of lyric compositions invented by the Italians. Book VI exhibits the origin and different kinds of Tuscan dramatic poetry. Book V, the origin and present state of vulgar epic poetry. Book VI treats of various other modes of vulgar poetry which bear an equal relation to all the species hitherto noticed; and also of a variety of other matters which relate to the same subject.

In the times, says our author, in which the court of the Neapolitan monarchs was held in Sicily, towards the close of the twelfth century, originated this vulgar poetry, which by some was called Italian, and by others Tuscan; and which, at first, as indeed happens to every thing else, was regarded as of little or no value, being merely introduced for the purpose of pleasing

the fair-sex, who far more readily listened to the songs of their lovers, when addressed to them in their native tongue, than in Greek or Latin; which, although not diminished in value, were in these days allotted to graver and more important subjects. And hence it occurs, that we still meet with Greek and Latin compositions of the bards of Sicily, but not with productions in their own language; the latter, from their trivial merit, having in no instance descended to posterity. From the Sicilians, the Italians learned to poetise in their own tongue; and this tongue, like the art of poetising itself, they derived from the former. The Sicilians, who introduced the art of modern or vulgar poetry into Italy, derived it, according to our author, from the Provençals or Troubadours. Of this, there is little doubt: for it is highly probable that the vernacular poetry of most modern European nations is attributable to the same source; and that; scattered over Gascony, France, Italy, Spain, Arragon, and England, these traveling minstrels, under the various names of Troubadours or Trouveres, Jonglcurs, Cantadours, Violars, and Musars, first reduced to metre the different languages of the countries through which they wandered. We should add, that they seem to have made their earliest appearance in the province of Provence, towards the close of the tenth century, and that they were uniformly denominated Provençals, from this circumstance. It is nevertheless asserted by Castelvetro, that the Sicilian minstrels were the elder of the two, and taught the art of poetry to the bards of Provence—an assertion, however, which is altogether untenable, since we are still in possession of Provençal specimens, of high cultivation and polish, of as early a date as the twelfth century, while the earliest specimens of the Sicilian Muse which have descended to us, do not reach beyond the end of the fourteenth, and beginning of the fifteenth, centuries; and are, at the same time, rude and barbarous efforts, and afford evident testimony that the metrical art of the Sicilians was, even at this time, in its infancy. Among the most celebrated Provençals of the twelfth century, were Arnaud Danielle and Joseph Rudelle, the merits of the former of whom are thus established, by the immortal testimony of Petrarch, in his Triumph of Love.

> 'Fra tutti il primo Arnaldo Daniello,
> Gran maestro d' amor, ch' alla sua terra
> Anco fa onor col dir pulito e bello.'

All early modern versifications were, in the opinion of our author, derived from good Latin poetry, as the Latin was from good Greek; and, although, in the decline and mutilation of the Latin tongue, its accuracy of quantity was altogether lost, it still retained a degree of harmony in the regularity of its measured feet, to which, at this period, was added the new grace

of terminating rhymes, constituting a versification which was first introduced by the Provençals into their own tongue, and which from the Provençal passed into the Italian. The Latin hexameter verse, however, was soon broken into a variety of little verses, or versicles (versetti); and Crescembini contends (and supports his opinion by examples from Nostradamus, Dante, and others) that, even in the time of the Troubadours, this variety extended from trimeters, or versicles of only three syllables, to hendecameters, or verses of eleven. We have some doubt, however, whether these latter verses did not in every instance consist of two metrical lines united into one, the former containing five syllables, and the latter six, or *vice versâ*; and we are supported in this hesitation, by the belief of Castelvetro, that such was their arrangement. Instances of this kind are not uncommon in our own language, and even in verses of less length. Thus, in the termination of Gray's Bard, in which the first and third of the verses quoted consist in reality of two lines each, though generally written and regarded as one:

'Enough for me, | with joy I see,
The different doom our fates assign:
Be thine despair, | and sceptred care,
To triumph and to die, are mine.'

We have examples still in existence of the extension of Provençal poetry to verses of even more than eleven syllables: but it is probable that all these are of a date considerably below the twelfth century; and our author has in consequence omitted to notice them in the chapter to which we now refer.

The short or broken versicles of the Provençals do not appear to have continued long in favour with the earliest writers of Italian poetry: they gradually sunk into dis-esteem; and were at length so utterly disliked, that all the compositions of Petrarch will not supply us with an instance of a verse below an heptameter, or one of seven syllables. In this respect, the Italian taste appears to have differed essentially from the English, which furnishes us, from the first introduction of vernacular poetry, down to the last century, with versifications of every length, from the trochaic trimeter, or versicle of three syllables, to the heroic of ten, twelve, and even fourteen; of which two last species the Polyolbion of Drayton, and the Homer of Chapman, will furnish us with undeviating examples.

It was in the fifteenth and sixteenth centuries that the Italians began to discover much taste for Pindaric, Anacreontic, and dithyrambic poetry; and the disused versicles of fewer than seven syllables were here occasionally employed with considerable felicity. The success, indeed, that attended their introduction into these classes of metre, induced many poets to try their effect once more in tragic and heroic verse: but the at-

tempt seems almost universally to have been disapproved; and the very excellent Canace of Sperone Speroni, which abounds with versicles of this description, has never acquired the fame to which it is entitled, from the use of this defective metre alone.

In the latter days of Provençal poetry, we have already noticed that several writers discovered a taste for a verse longer than the hendecameter, or common Italian heroic of eleven syllables; and this elongated metre was revived by the Italians themselves, according to our author, about the latter end of the fifteenth, or the beginning of the sixteenth, century: yet even this attempt does not appear to have been attended with much success. It commonly consisted of a twelfth, though sometimes of a thirteenth, fourteenth, or even sixteenth, syllable, with the acute accent falling, in the first instance, on the eleventh, and in the last on the fourteenth, or antepenultima; and constituted a hypermeter, or redundancy of measure, which by the Italians was denominated *sdrucciolo*, or a slippery verse. Alessandro de' Pazzi, who flourished about the middle of the sixteenth century, composed whole tragedies and comedies with the first of these hypermeters, or the verse of twelve syllables. The following examples, of which the former is extracted from Pantaffio, and the latter from Luigi Olamanni, sufficiently explain our author's meaning.

'Pe' falli de' folli, che son troppo felli
Che fanno le fische con fisca favella.'

'E' mi conviene ogni mese, com' or, venire a rendere
I miei conti in villa a Simone, il qual sempre dubita,
Che tutti i fattor c' hanno le sue faccende in mano, il rubino,' &c.

In our own language, we have also verses of a similar description; and we shall better illustrate the above to the English reader, by an instance or two selected from our own poets, than by a literal version of these couplets themselves. Our dramatic pieces, even to the present day, abound with verses of a simple redundant syllable: thus Addison—

'Tis the Divinity that stirs within *us*,
'Tis Heaven itself that points out an hereaf*ter*.'

So, frequently, in our didactic poems, even when subject to the control of rhyme, as in the following couplet of Pope:—

'Worth makes the man, and want of it the fel*low:*
The rest is all but leather and prunel*lo*.'

Here the redundancy consists of but one syllable, and consequently pairs with the former of the two Italian examples. In

the following, which is from the Mausoleum of Mr. Hayley, it extends to two, and of course matches with the latter.

'But I taught him to change the loose laugh of futi*lity*,
For the sweet melting tear of refined sensibi*lity*.'

Occasionally, however, among the Italian poets of as late a date as the sixteenth and seventeenth centuries, we meet with a verse of this length, and even extending to not less than sixteen or eighteen syllables, without any *sdrucciolo*, or redundancy whatever. Of these, many examples are to be found in Ludovico Zuccolo; and, among the rest, the following:—

'Non da terrena musa, non da fallace imaginato nume,
Come già feci errante, chieggio, signor, la sospirata aita;
Solo in te suo principio, fine avrà in te de le mie labra il suono.'

Crescembini, however, agrees with Zuccolo in regarding every verse of this unconscionable longitude, as a compound or combination of two or more versicles, and seems to coincide with him in the following observation:—'that, although he perceives rhythm, or number, in the members of each verse, he cannot ascertain any thing of the kind in the verse taken as a whole; whence' says he, 'I manifestly conclude that we had much better denominate such lines *congeries of verses*, than verses alone:'—così evidentemente vengo a concludere, che abbiano piu tosto a nominarsi *congerie di versi*, che versi. The same has been often noticed respecting the verses of our own ancient poets of a similar, or nearly similar, length. Thus the verse of fourteen syllables, which occurs in Warner's Albion's England, as follows—

'Three people have as many times got and forgone this shore:
It resteth now yee conquer it, not to be conquered more—'

would, in a modern dress, be divided into two verses each, of eight and six syllables alternately, in the ensuing manner:—

'Three people have as many times
Got and forgone this shore:
It resteth now ye conquer it,
Not to be conquered more.'

And hence the reason why, in the general course of this kind of alternate metre, we only meet with rhymes to the second and fourth versicles, and none to the first and third, which, under the old arrangement, terminate in the middle of their respective verses. In Arabic and Persian, this mode, of writing a couplet in a single line, is continued to the present day, without variation. Thus, as an example may be taken from any period, we select the following from the renowned elegy of Tarafa, one of the writers of the Moallakat.

و في الحيّ احوي ينغض الهرا شادن
ضظاهر سبطي لؤلؤ وزبرجد

which, in classical prosody, would run thus:—

Wăfī'l hai | iāhwāyān | fŏdhō'lmērol | ăshadĭnōn
Modhăhēr | ŏsimthālū | luĭnwă | zăbārgĭdiñ

'A black-eyed fawn, with pearls and emeralds gay,
There played; and plucked the berry's purple spray.'

All these different branches of superabundant metre were nevertheless disapproved, as equally inelegant, unfortunate, and even monstrous; and Claudio Tolomei contrived a new order of versification, and one which, in the language of Ruscelli, was to have lifted poetry out of the hands of artisans, women, and children, and effectually discriminated the learned from the unlearned. This consisted in a re-introduction of the old Latin harmony and cadence, and especially in the use of the hexameter and pentameter verse. The plan of Tolomei was adopted and followed, for some time, by many of the literati of his age: but this also gradually fell into dis-use, as inconsistent with the genius of the Tuscan tongue.

Mr. Crescembini now proceeds to a description of the different orders of versification admitted in the present, or rather in his own day. These he divides into the two grand classes of blank verse (*versi sciolti*) and rhyme; respecting which, we unite with him, in believing the latter to have been the elder of the two. The former he subdivides into three species—that of hendecameter, or of eleven syllables, which, notwithstanding the rival claims of Giovanni Rucellai, Sannazzaro, or even Luigi Alamanni, was, in all probability, the invention of Trissino, towards the beginning of the sixteenth century; hendecameter, with a redundant syllable, or the *sdrucciolo*, which our author attributes to Ludovico Ariosto, who was contemporary with Trissino; and that in which the hendecameter and heptameter, or verses of eleven and seven syllables, are intermixed, which was also introduced about the same period, but by a disputed inventor. Rhyme-poetry, among the Italians, both is at present, and always has been, more common than blank verse. Mr. Crescembini divides it into regular and irregular, both being of nearly equal standing, and almost as old as the very commencement of vulgar Italian poetry of any kind. The tide of opinion, however, ran so much in favour of regular rhyme, in the earlier æras from their common birth, that, towards the close of the fifteenth century, it had almost supplanted its rival upon every occasion: the Canace of Speroni at this period, never-

theless, recalled it into notice; and Alessandro Guidi has given it a fashion which it will not readily lose. Regular rhyme has, nevertheless, been at all times more common, and conceived to possess a higher degree of perfection. Mr. Crescembini divides it into two classes: the one with invariable, the other with variable, harmony; meaning, by the former, those compositions in which verse corresponds with verse, rhyme with rhyme, and even pause with pause; and, by the latter, those in which the correspondence of pause with pause is dispensed with. It is the first which constitutes the true perfection of Tuscan poetry, and which, under the form of terzets, quartets, quintets, sestines, and octaves, has been, with but few variations, applied to all Italian canzoni and canzonetti, sonnets, simple and duplicate ballads, and madrigals.

Our author closes his first book with a brief account of the different styles of writing which were progressively adopted by the bards of his own country, from the earliest origin of vulgar poetry, to the æra in which he wrote himself. He observes, that, after the rude and unadorned diction of the earliest poets of Italy, the language acquired its first appearance of dignity under the plastic hands of Guido Guinizelli, by the introduction into his rhymes of the sentiments of the Platonic school; and, immediately afterwards, by the exertions of Dante, who made it a language of philosophy; but that its prime reputation and glory were derived from the labours of Cino da Pistoia and Petrarch, and especially of the latter, who gave it its finest and most laboured polish. This polish, however, from the depraved taste of subsequent ages, it has frequently been in danger of losing: it continued to lose it, till the age of Lorenzo de' Medici, who, in conjunction with Agnolo Poliziani, restored it to all its splendour. It shortly afterwards, however, sustained a still deeper decline, by the barbarous intermixture of the Lombard with the Tuscan dialect, and the absurd and affected orthography of Tibaldeo, Cornazanno, and many others of the same school; and seldom recovered much of its essential glory, till the age of Bembo, Guidiccioni, Sannazzaro, Casa, and their illustrious coevals of the sixteenth century. Finally, it received its utmost purity and exquisite appropriation to heroic subjects, from the immortal genius of Ariosto, and of Torquato Tasso

The remaining books, which treat of the different orders, together with their respective regulations, of the compositions which have been derived from the Provençals, of those invented by the Italians themselves, and the laws to which they are subject, are so truly vernacular, that we could scarcely hope to render an epitome of them acceptable to the English reader. They are, in every instance, however, most exquisitely diversified by examples, selected with equal erudition, precision, and taste, and offer to the student of the Italian tongue a

luxurious treasure of elegant and refined entertainment. Mr. Mathias is entitled to much praise from the republic of polite literature, for his present spirited undertaking, and particularly for the assiduity with which he has superintended the press. It was our intention to have selected several of what have appeared to us the more beautiful specimens of the poetical extracts, and to have offered an English version of them: but, if the writer of this article ever fulfil such an intention, it must be in another form; for we have already exceeded the limits allotted by the extent of our journal.

ART. VI.—*Recreations in Mathematics and Natural Philosophy, first composed by M. Ozanam, lately re-composed and greatly enlarged by the celebrated M. Montucla, and now translated into English, with many Additions and Observations, by Charles Hutton, LL. D. F. R. S. and Professor of Mathematics in the Royal Military Academy, Woolwich. With nearly a Hundred Quarto Plates.* 4 *Vols.* 8*vo.* 5*l.* 3*s.* *Boards.* Kearsley. 1802.

THE chief excellency of science does not consist in its speculations, in the exercises it provides for the mental powers, or even in the mere improvement of the mind itself; for, however great the advantages hence obtained, they are necessarily limited, in their abstract value, to but few of the human race. Its prime benefit proceeds, therefore, from its practical results, from those truths, which, when deduced from it, are not only gratifying to the mind that discovers them, but are constantly applicable to the purposes of life. It is necessary, however, that these truths, to be generally serviceable, should be generally known; and it is for this purpose that they should be presented to the world in a language which the artisan and the mechanic may comprehend. We plead not for that simplification of science which would reduce it to a level with the lowest and most common operations of the mind; nor, indeed, do we believe this to be possible; but we wish for a more popular diffusion of that great body of facts and principles which science has discovered. If, by such a procedure, the honour of science be thought endangered, or its majesty degraded, it is only necessary to reflect that there will ever be a wide difference between him who receives information at second hand, without knowing or caring how it was obtained, and him who, with a mind well disciplined by study, can demonstrate what is known, examine what is doubtful, and correct what is false.

Independent, however, of practical utility, which, as we have already observed, is the blessing of science, its discoveries have another claim upon the attention of mankind, as they furnish

amusement for the curious, and gratification to the inquisitive. With these ends in view, various collections have been made, and presented to the public in the form of *recreations*, &c.; and for this purpose chiefly the work before us was first drawn up by its original author, afterwards augmented and improved by Montucla, and now, with a still greater increase of value, made accessible to the English reader by the present translator. The plan originated with the Greeks, of whose Anthology it formed a part. It was then adopted by Bachet de Meziriac, a commentator on Diophantus, who published, in 1626, his 'Problèmes plaisans et délectables sur les Nombres,' and whose work was succeeded, in the following year, by Van Etten's 'Récréation Mathématique,' which, though a miserable rhapsody, was the last that preceded the selection of Ozanam. This was published in 1692, under the title of 'Récréations Mathématiques et Physiques,' in two volumes octavo, and, by various additions, was at length increased to four. The nature and design of the work, in its present state, will be more fully exhibited by the following extract from Montucla's preface.

'Mathematics and philosophy are cultivated by two different classes of men: some make them an object of pursuit, either in consequence of their situation, or through a desire to render themselves illustrious, by extending their limits; while others pursue them for mere amusement, or by a natural taste which inclines them to that branch of knowledge. It is for the latter class of mathematicians and philosophers that this work is chiefly intended; and yet, at the same time, we entertain a hope that some parts of it will prove interesting to the former. In a word, it may serve to stimulate the ardour of those who begin to study these sciences; and it is for this reason that in most elementary books the authors endeavour to simplify the questions designed for exercising beginners, by proposing them in a less abstract manner than is employed in the pure mathematics, and so as to interest and excite the reader's curiosity. Thus, for example, if it were proposed simply to divide a triangle into three, four, or five equal parts, by lines drawn from a determinate point within it, in this form the problem could be interesting to none but those really possessed of a taste for geometry. But if, instead of proposing it in this abstract manner, we should say: "A father on his death-bed bequeathed to his three sons a triangular field, to be equally divided among them; and as there is a well in the field, which must be common to the three co-heirs, and from which the lines of division must necessarily proceed, how is the field to be divided so as to fulfill the intention of the testator?" This way of stating it will, no doubt, create a desire in most minds to discover the method of solving the problem; and however little taste people may possess for real science, they will be tempted to try their ingenuity in finding the answer to such a question as this.' Vol. i. p. ii.

Notwithstanding the general circulation of Ozanam's work, and the numerous editions through which it passed, many

frivolities, absurdities, and defects, have uniformly attached to it.

'There is reason, however, to think that the author would have rendered it much more interesting, and have carried it to a higher degree of perfection, had he lived in an age more enlightened and better informed in regard to the mathematics and natural philosophy. Since the death of that mathematician, indeed, the arts and sciences have been so much improved, that what in his time might have been entitled to the character of mediocrity, would not at present be supportable. How many new discoveries in every part of philosophy? How many new phænomena observed, some of which have even given birth to the most fertile branches of the sciences? We shall mention only electricity, an inexhaustible source of profound reflection, and of experiments highly amusing. Chemistry also is a science, the most common and slightest principles of which were quite unknown to Ozanam. In short, we need not hesitate to pronounce that Ozanam's work contains a multitude of subjects treated of with an air of credulity, and so much prolixity, that it appears as if the author, or rather his continuators, had no other object in view than that of multiplying the volumes.

'To render this work, then, more worthy of the enlightened age in which we live, it was necessary to make numerous corrections and considerable additions. A task which we have endeavoured to discharge with all diligence.' Vol. i. P. vi.

With such a determination, and with such means to execute it as M. Montucla possessed, it was impossible that such a work should pass through his hands without obtaining considerable improvement. He threw the whole into a new form, correcting the absurdities, and rejecting the frivolities, which Ozanam, or his editors, had introduced; and not only arranged, in a more judicious order, the materials which lay before him, but, from his own capacious stores, supplied others of equal value and importance. In this state of the work, it was deemed worthy of an introduction to the British public; and, accordingly, the translation was undertaken by the present editor, who has both improved the work by his own emendations, and increased its utility by the addition of a variety of interesting articles. An early edition of the 'Récréations' was, indeed, translated into the English language many years since; and we have also seen a little volume under this title, published at least a century ago, which, though in itself curious and amusing, is, in comparison with the volumes now before us, trifling and contemptible.

We now proceed to the contents of the present work. The first volume is occupied by arithmetic and geometry. Of arithmetic, the different kinds and systems are explained; and accounts are given of the most singular properties of numbers, short and curious modes of computing by arithmetical machines,

and Napier's rods. The principles of combinations and progressions are laid down with clearness and precision, and exemplified in a great variety of curious problems resulting from the subjects, with a selection of examples for exercise. These are followed by political arithmetic, including whatever is most interesting with regard to population, the duration of human life, &c. In geometry, we meet with the various properties, constructions, transformations, and measures, of geometrical figures; the quadrature and rectification of the circle; a number of remarkable problems respecting the lunules of Hippocrates, &c. The volume terminates with a collection of very curious problems, without demonstrations, for the purpose of exercise. M. Montucla observes, very justly, that they are rather simple and elegant, than difficult; although some of them are not unworthy the attention of the experienced geometrician or analyst.

From this volume we select the following extract, by way of showing the manner in which the work is executed. The author, after treating of the different kinds of arithmetic, thus remarks on the duodenary system, or that formed upon a series of *twelves*, as the system now in use is founded upon a series of *tens*.

'It is not improbable that the duodenary system would have been preferred had philosophy presided at the invention; for it would have been readily seen that *twelve*, of all the numbers from 1 to 20, is that which possesses the advantage of being small, and of having the greatest number of divisors; for there are no less than four divisors by which it can be divided without a fraction, 2, 3, 4 and 6. The number 18 indeed has four divisors also; but being larger than 12, the latter deserves to be preferred for measuring the periods of numeration. The first of these periods, from 1 to twelve, would have had the advantage of being divisible by 2, 3, 4, 6; and the second from one to 144, by 2, 3, 4, 6, 8, 9, 12, 16, 18, 24, 36, 48, 72; whereas, in our system, the first period, from 1 to 10, has only two divisors, 2 and 5; and the second, from one to a hundred, has only 2, 4, 5, 10, 20, 25, 50. It is evident, therefore, that fractions would less frequently have occurred in the designation of numbers in that way, namely by twelves.

'But what would have been most convenient in this mode of numeration, is that in the divisions and sub-divisions of measures, it would have introduced a duodecimal progression. Thus, as the foot has by chance been divided into twelve inches, the inch into twelve lines, and the line into twelve points; the pound would have been divided into twelve ounces, the ounce into twelve drams, and the dram into twelve grains, or parts of any other denominations; the day would have been divided into twelve equal portions called hours, the hour into twelve other parts, each equal to ten minutes, each of these parts into twelve others; and so on successively. The case would have been the same in regard to measures of capacity.

'Should it be asked, what would be the advantage of such a division? we might reply as follows. It is well known by daily experience, that when it is necessary to divide any measure into three, four, or six parts, an integer number in the measures of a lower denomination cannot be found, or at least only by chance. Thus the third or the sixth of a pound averdupois does not give an exact number of ounces, and the third of a pound sterling does not give an integer number of shillings. The case is the same in regard to the bushel, and the greater part of the other measures of capacity. These inconveniences, which render calculations exceedingly complex, would not take place if the duodecimal progression were every-where followed.

'There is still another advantage which would result from a combination of duodenary arithmetic, with this duodecimal progression. Any number of pounds, shillings, and pence; of feet, inches, and lines; or of pounds, ounces, &c. being given, they would be expressed as whole numbers of the same kind usually are in common arithmetic. Thus, for example, supposing the fathom to consist of twelve feet, as must necessarily be the case in this system of numeration, if we had to express 9 fathoms, 5 feet, 3 inches, and 8 lines, we should have no occasion to write 9f. 5f. 3in. 8li. but merely 9538; and whenever we had a similar number expressing any dimensions in fathoms, feet, inches, &c. the first figure on the right hand would express lines, the second inches, the third feet, the fourth fathoms, and the fifth dozens of fathoms, which might be expressed by a simple denomination, for example a perch, &c. In the last place, when it might be necessary to add, or subtract, or multiply, or divide similar quantities, we might operate as with whole numbers, and the result would in like manner express, according to the order of the figures, lines, inches, feet, &c. It may easily be conceived how convenient this would be in practice.' Vol. i. p. 5.

Notwithstanding all these advantages, and though philosophy might, if at first appealed to, have established such a system as this, we conceive it not very likely that the deep-rooted customs and prejudices of mankind will ever be so far removed, as that they will be persuaded to adopt the duodenary arithmetic in the place of those methods which time has consecrated, and practice made familiar.

The subjects of the second volume are mechanics, optics, acoustics, and music. On the first of these we meet with a great number of well-selected and interesting problems, with the general principles of the science, and accounts of the most celebrated machines. A valuable history is also given of the attempts which have been made to produce a perpetual motion, in the course of which many curious facts relating to the subject are developed. Water-wheels, steam-engines, celebrated clocks, &c. as the next objects of consideration, are described with ability, and explained with clearness.—In optics, the most material discoveries are detailed, and applied to many curious purposes.—Under the heads acoustics and music are included the principles of the formation and propagation of sound, the

phænomena depending on them, the effects of harmony, explanation and comparison of ancient and modern music, description of musical instruments, the properties of each, &c. all which are detailed in a manner at once engaging and explicit.

The third volume comprehends astronomy, and the astronomical part of geography; chronology; gnomonics, or dialling; navigation; architecture; and pyrotechny, or the art of making artificial fire-works. On all these subjects, except chronology, the work of Ozanam has been very much altered and amended: the article on astronomy is enlarged and corrected: those on dialling, navigation, and architecture, comprising the general principles and the most useful information on the subjects they relate to, are chiefly original, having been supplied by M. Montucla himself.

The fourth volume is devoted almost entirely to physics, or natural philosophy, in all its branches. Here we have, in the first place, an accurate statement of the best known properties of fire, air, water, and earth; to which succeed experiments on air, and hydraulic recreations; the history of thermometers, barometers, and hygrometers, with the method of constructing them; an account of air-pumps, water-pumps, siphons, and fountains; observations on the divisibility of matter, the tenuity of light, of odours, &c.; particulars respecting comets; explanation and history of intermittent springs; phænomena of ice, methods of producing it, &c. &c. These are followed by a treatise or dissertation on the magnet; one on electricity; and one on chemistry; in which these subjects are handled with as much ability as appeared to be possible within such limits as correspond to the other departments of the work.

To this volume are added two supplements, the first of which treats of the different kinds of phosphorus, both natural and artificial; and the other of the pretended perpetual lamps, of which an historical account is given, and an exposure of the chimerical principles on which the pretension is founded.

From this volume we make the following extract, on the *luminous appearance of the sea.*

'Though navigators must have observed this phenomenon for many centuries past, as it is common to every sea, and there is scarcely any climate where it does not, under certain circumstances, present itself, it appears that very little attention has been paid to it till within a late period. Most sea-faring people believed, that this light was merely the reflection of that of the stars, or that of the vessel itself; others, considering it as a real light, imputed it to the collision of sulphur and salts; and, satisfied with this vague explanation, they scarcely condescend to pay attention to the phenomenon. As it is highly worthy of profound research, and is attended with very remark-

able circumstances, we shall here give a description of it, as it appeared to us on our passage from Europe to Guyana, in the year 1764.

'I do not recollect that we beheld the sea luminous till our arrival between the tropics; but at that period, and some weeks before we reached land, I almost constantly observed that the ship's wake was interspersed with a multitude of luminous sparks, and so much the brighter as the darkness was more perfect. The water round the rudder was, at length, entirely brilliant; and this light extended, gradually diminishing, along the whole wake. I remarked, also, that if any of the ropes were immersed in the water, they produced the same effect.

'But it was near land that this spectacle appeared in all its beauty. It blew a fresh gale, and the whole sea was covered with small waves, which broke, after having rolled for some time. When a wave broke, a flash of light was produced; so that the whole sea, as far as the eye could reach, seemed to be covered with fire, alternately kindled and extinguished. This fire, in the open sea, that is at the distance of fifty or sixty leagues from the coasts of America, had a reddish cast. I have made this remark, because I do not know that any person ever examined the phenomena which I am about to describe.

'When we were in green water*, the spectacle changed. The same fresh gale continued; but in the night time, when steering an easy course between third and fourth degree of latitude, the fire above described assumed a form entirely white, and similar to the light of the moon, which at that time was not above the horizon. The upper part of the small waves, with which the whole surface of the sea was curled, seemed like a sheet of silver; while on the preceding evening it had resembled a sheet of reddish gold. I cannot express how much I was amused and interested by this spectacle.

'The following night it was still more beautiful; but at the same time more alarming, in consequence of the circumstances under which I then found myself. The ship had cast anchor at a considerable distance from the land, waiting for the new moon, in order to enter the harbour of Cayenne. Being anxious to get on shore, I stepped into the boat with several other passengers; but scarcely had we got a league from the ship, when we entered a part of the sea where there was a prodigious swell, as a pretty smart gale then prevailed at south-east. We soon beheld tremendous waves, rolling in our wake, and breaking over us. But what a noble spectacle, had we not been exposed to danger. Let the reader imagine to himself a sheet of silver, a quarter of a league in breadth, expanded in an instant, and shining with a vivid light. Such was the effect of these billows, two or three of which only reached us, before they broke. This was a fortunate

'* The water of the sea, at least of the Atlantic Ocean, at a distance from the coasts, is of a dark-blue colour; but near land, that is to say, twenty or twenty-five leagues from the coast of Guyana, the water suddenly changes its colour, and becomes a beautiful green. This is a sign of being near land. This change, in all probability, is produced by the muddy, yellowish water of the river of the Amazons; for it is well known that blue and yellow form green. But a remarkable circumstance is, that this change is absolutely abrupt; it does not take place by degrees, but suddenly, and in an interval which appeared to me, from the deck of the vessel, to be scarcely a foot in extent.'

circumstance, for they left the boat half filled with water, and one more, by rendering me a prey to the sharks, would certainly have saved me from the trouble of new-modelling the work of the good M. Ozanam.

'There is scarcely a sea, in which the phenomenon of this light is not sometimes observed; but there are certain parts where it is much more luminous than in others. In general, it is more so in warm countries, and between the tropics, than any where else; it is remarkably luminous on the coasts of Guyana, in the environs of the Cape Verd Islands, near the Maldives and the coasts of Malabar, where, according to M. Godehen de Riville, it exhibits a spectacle very much like that above described.

'A phenomenon so surprising could not fail to excite the attention of philosophers; but till lately they confined themselves to vague explanations; they ascribed it to sulphur, to nitre, and other things, of which there is not a single atom in the sea, and they then imagined that they had reasoned well.' Vol. iv. p. 461.

The causes here assigned for these appearances are certain insects upon the water, which become luminous by agitation, and phosphoric matter produced in the sea by a peculiar combination of the principles it contains. The existence of each of these has unquestionably been separately ascertained by persons who, at different times, have made microscopic and chemical observations on portions of the luminous water of the sea; but the phænomenon yet requires investigation, and has not been completely accounted for.

In various parts of these volumes are inserted a great number of extensive and useful tables, relating to measures and weights, compared with the British standard—specific gravities—latitudes and longitudes—itinerary measures—eclipses—degrees of heat or cold at which different substances melt or congeal—dilatation of metals—heights of places and mountains, &c.—all accommodated, where necessary, to the habits and convenience of the English reader.

To the first volume are prefixed short sketches of the lives and writings of Montucla and Ozanam.

Such are the general outlines of the performance now before us; a performance which, we confess, has afforded us more pleasure and instruction than we had anticipated from a perusal of the title. From the multifarious nature of the work, the analysis we have given must of necessity be defective: an adequate knowledge of its contents can only be acquired by consulting the Recreations themselves, which we recommend to the man of science for the purpose of amusement and recollection, as well as that of showing him to what an amazing variety of objects his principles may be applied with success; and to the general reader, as a comprehensive storehouse from which his mind may at any time be furnished with information, either useful, curious, or entertaining.

ART. VII.—*The Pleader's Guide, a didactic Poem, in two Books, containing the Conduct of a Suit at Law, with the Arguments of Counsellor Bother'um, and Counsellor Bore-'um, in an Action betwixt John-a-Gull, and John-a-Gudgeon, for Assault and Battery, at a late contested Election. Book II.* 8vo. 4s. 6d. *sewed.* Cadell *and* Davies. 1802.

THE first book of this facetious poem appeared in the year 1796. 'The second part,' its author, the younger Mr. Anstey, humourously remarks, 'is now published, after an interval of delay, by no means ill adapted to the true genius and character of the subject.' Although the practice of *reviewing* essentially differs from the usages of *pleading*, yet even the courts of criticism occasionally admit a *dilatory plea*. Constrained by circumstances, *we*, too, have yielded to this spirit of procrastination.

With a warmth of applause which *genuine* merit must ever awaken, we received, on its first introduction, the PLEADER'S GUIDE*. He returns to enliven us, by the same exquisite combination of sprightly ridicule and professional acuteness.

The earlier lectures of Mr. Surrebutter initiated his readers into that strange and mysterious learning, which relates to the *process* or manner of commencing a suit at law. The *pleadings*, or routine of subsequent proceedings from the process to the trial, and the conduct of the *trial* itself, are comprehended in ten additional lectures, which, with consummate skill and humour, complete the poem.

Although the technical language which his subject necessarily requires, may partially obscure the taste and lively wit of the poet, yet few readers will be insensible to his pleasant raillery, of which we shall extract numerous specimens.

We begin with a eulogium on legal diction, and the blessings of legal confusion.

> 'Melodious as Apollo's lute
> Is the soft language of a suit,
> The †writ, how sweet! the ‡declaration,
> The §double plea, the ‖replication!' P. 6.

---

* In our 19th vol. New Arr. p. 284.

'† *Writ*—the writ here celebrated, is the original writ, see book 1, lect. 4.

'‡ *Declaration*—or tale containing the story of the plaintiff's case, see book I, lect. 8.

'§ *Double plea*—a plea is the defendant's answer to the plaintiff's declaration, and is either general or special A double plea, is in the nature of two distinct answers to the plaintiff's allegation: originally it was required that every plea should be certain and single. A double plea was not allowed to be good, nor the defendant permitted to plead two distinct matters, till the 4th and 5th Ann, c. 16, by which statute the defendant is allowed to make the most of his case, by pleading, with the leave of the court first had and obtained, (which form of words is uniformly so expressed in the plea) as many distinct matters, as may be advisable and necessary to his defence. This wholesome statute may be considered as the foster-father of all special pleading.

'‖ *Replication*—is the plaintiff's answer, or exception to the defendant's plea.'

'What a revenue to the state
Error and ignorance create,
By what we lawyers most abound in,
The art of puzzling and confounding!
From ignorance a pleader gains
Fresh matter to employ his brains,
Errors on errors rise, and thus
As doctors say, *pus creat pus*,
One suit another suit succeeds,
And damage upon damage breeds;
If law is as a rule of right,
And all things must be measured by't,
There must be lawyers to provide it,
And some to move and some to guide it;
Item, there must be stock or stone,
Or senseless block to work upon.' P. 24.

The *pacific* attorney, who dares decline 'to cheat in lawful mysteries,' is deprecated with indignant heat.

'Perish the man who dares control
That generous ardor of the soul,
That noble, that ingenuous heat
Which prompts the truly brave and great,
To seek an adversary's ruin,
Tho' purchas'd by his own undoing.
May the fat weed of Lethè shed
Its dullness o'er his recreant head,
Whoe'er has wilfully supprest
That passion in his client's breast;
May he in self-condemning mood,
For lack of more substantial food,
Eat his own soul; as erst we find
Th' ill-fated son of Glaucus din'd;
Give him of hellebore to drink;—
Wash him in steep-down gulphs of ink;
Immerge him till he cries for quarter,
And pound him in a * Turkish mortar.' P. 27.

'Are these true orthodox attornies?
Are they such men as Hawk or Herne is?
Have they that truly *qui tam* spirit
Which animates my friend Joe Ferret?
Range they in any competition
With men of Mr. Shark's condition?' P. 30.

'* "*Turkish mortar.*"—Extraordinary as it may appear, it is a fact not to be doubted, that the lawyers in Turkey when sentenced to capital punishment, have the privilege of being pounded to death in a mortar. Baron de Tott in his Memoirs, records an event that happened during his residence at Constantinople, which occasioned the pestles and mortars to be dug up, by the order of Sultan Osman, for the purpose of pounding the refractory lawyers to death. "This order," the baron adds, "had the desired effect, and the body of Ulemats were all submission." Bar. de Tott Memoirs, vol. I.'

The connexion of Mr. Surrebutter with Mr. Shark is admirably related in the third lecture: but, among so many passages deserving of selection, we have often hesitated to decide on our preference. The instructions for forming the orator at the bar, though replete with professional phrases, cannot fail to amuse.

> 'If to the logic of the schools
> You join a special pleader's rules,
> And then to Westminster resort,
> And take a few short notes in court,
> Sit snug behind some fat attorney
> And make a friend of Mr. Gurney,
> You'll gain, in time, your share of praise
> For arguments on paper days,
> And much improve your legal notions,
> By th' art of wrangling upon motions,
> Lamenting much your client's hardship—
> "My lard, I humbly move your lardship—
> Rule to show cause, my lard, we crave it,
> Upon a special affidavit.—
> We move to quash, in your discretion,
> An order of a special session,
> Sign'd by five aldermen at least
> Just after an election feast.—
> Order in bastardy, my lard,
> Case not appeal'd, and doubly hard,
> Twins—and the aldermen who sat
> Exceedingly intaxicate—
> Nor on these grounds we rest alone,
> My lard, it plainly can be shown
> That neither county, place, nor year,
> In which the parties liv'd, appear,
> Nor the least mention where they met
> Said child or children to beget:
> My lard, the order is not dated,
> Nor any filiation stated—
> No mention of the childrens sex,—
> All which are radical defects;
> And as we deem the case aforesaid
> So clear that nothing need be more said,
> Perhaps, my lard, you'll aid our suit
> And grant us a rule absolute."
> Now Job, this manner of addressing
> Is so polite, and prepossessing,
> So wonderfully well connected,
> Plain, elegant, and unaffected,
> I recommend the same to you,
> For making a genteel *début*.' P. 39.

We proceed to the rules of oratorical *action*.

> 'At first, with accent mild and meek,
> And looks that diffidence bespeak,

With modest air and timid hand
Hold up your brief and stroke your band,
For Modesty, whose gentle mien,
If haply at the bar she's seen,
The court with that respect will treat
Which strangers may expect to meet,
But, when grown warm in your narration,
Proceed to loud vociferation,
Strong phrase, and bold gesticulation;
Then, like a prisoner from the bilboes,
Stretch out your legs, your arms and elbows,
Till you manœuvre them at length.
With all the spirit, ease and strength,
Of some young hero, first essaying
The noble art of cudgel-playing,
Or fugelman, an active part
Performing in the tactic art;
Flourish your brief, look boldly round,
And stamp your foot against the ground,
Then smack your forehead, and your thighs,
Like one that's bit by gnats or flies,
And so go thro' your exercise:' P. 47.

We must resist the temptation of extracting the able opening of the pleadings by Mr. Counsellor *Bother'um* at the trial, that we may borrow a few traits from the examination of the witnesses, which exhibits a spirited dramatic sketch in *caricatura*.

The witnesses produced at the trial—Simon Trout, a dissenting preacher and schoolmaster; Dr. Tench, a surgeon and apothecary; and farmer Chubb—distinctly support their characters.

'*Tench.* Sir, I know nothing of the fray,—
I was call'd in at the conclusion,
T' inspect a vertical contusion,
Gudgeon was then without his shirt,
His body much besmear'd with dirt;
There was an ugly awkward cut
Ran quite athwart the *occiput*,
He'd have been *comatose*, I'm sure,
And far beyond my skill to cure,
Had I been call'd ten minutes later—
I trembled for the *dura mater:*
The cuticle, or outward skin,
Portended something wrong within—
The *fauces* in a sad condition!
Betwixt the *nares* no partition!' P. 72.

'*Tench.* Optics, my lord, a perfect jelly!
One large contusion on the belly,
Two on the *costæ*, and as I guess
A kick upon the *os coccygis*,

Which caused a *tuber*, or a bump
Around the region of the rump.
' *Bother.* You took some blood, Sir, from him?—
' (*Tench*) Plenty—
Phlebotomiz'd him ounces twenty.' P. 73.

Farmer Chubb, after a long examination, becomes impatient:—

' *Chubb.* My lord I wishes to be going,
For 'tis a charming time for sowing.—
' *Bother.* Stay, Mr. Chubb, speak out, sir, do,
Did Gull beat Gudgeon? is that true?
' *Chubb.* Beat him! he beat him black and blue!
I never see'd a prettier fight,
So full of malice like, and spite.
' *Bore.* A fight! ho, ho! the truth's come out,
A fair set-to, a boxing bout?' P. 77.

The law-arguments which arise, are ingeniously fabricated to entertain.

Bother'um cites a case:—

' *Bother.* Mathew, my lord, and Ollerton—
Where one a beating underwent
By his own licence and consent,
I mean, my lord, that famous beating,
In Comberbach, 218, (two hundred eighteen)
Court held and so 'twas understood,
The licence void, the beating good—
' *Court.* Associate, hand me the record—
Well, Mr. Bore'um—?
' (*Bore.*) Hem—my lord?
' *Court.* What say you to the cases quoted!—
' *Bore.* My lord, these cases I have noted;
Mere *nisi prius* cases, loose,
Loose law, my lord, quite out of use' P. 84.

' *Bore.* What we rely on, is a saying
Of Dalton's, touching cudgel-playing;
Two play at cudgels for the nonce,
For pastime, and a broken sconce:
A breaks B's head, B makes assault on
A's nose, "No battery, quoth Dalton"—
Now, if the law of bloody noses,
And broken heads, as he supposes,
And states in chapter twenty-second,
Good law at single-stick is reckon'd,
I see no reason for refusing
Same law to boxing and to bruising.' P. 85.

' *Bore.* A is my finger, do ye see,
My adversary's button, B;

Now, if my finger A I put on
My learned adversary's button,
It may be trespass, or a plea
Of *son assault demesne* for B;
And if a little I should shake it,
And pull the button off, I take it
It would be batt'ry, and we say
That B was beat and bruis'd by A;
That A said B did strike and wound,
And in the pleadings 'twould be found
A knock'd B down upon the ground.' P. 86.

The poem aptly terminates in '*glorious* uncertainty,' *without* a decision.

'These gen'rous chiefs, resolv'd awhile to end
The doubtful conflict, and the suit suspend,
Both lovingly agreed at once to draw
A special case, and save the point in law,
That so the battle neither lost nor won,
Continued, ended, and again begun
Might still survive and other suits succeed,
For future heroes of the gown to lead,
And future bards in loftier verse to plead.' P. 89.

Proofs of talent and legal discrimination may authorise our poet, on the subject of his own work, confidently to address his readers with the lawyer of Hudibras:—

'Not to flatter ye,
YE HAVE AS GOOD AND FAIR A BATTERY,
AS HEART CAN WISH.'

We have alike attempted to perform *our* part, in faithfully *reporting* a well-argued case, which must instruct and delight every student of *burlesque law*.

ART. VIII. — *Observations on reversionary Payments; on Schemes for providing Annuities for Widows, and for Persons in Old Age; on the Method of calculating the Values of Assurances on Lives; and on the national Debt. Also, Essays on different Subjects in the Doctrine of Life-Annuities and political Arithmetic; a Collection of new Tables, and a Postscript on the Population of the Kingdom. By Richard Price, D. D. F. R. S. The Whole new arranged, and enlarged by the Addition of algebraical and other Notes, the Solutions of several new Problems in the Doctrine of Annuities, and a general Introduction. By William Morgan, F. R. S. 2 Vols. 8vo. 18s. Boards.* Cadell *and* Davies. 1803.

THIS is the sixth edition of an inestimable work: its original worth is well known, and has been ascertained, not merely by

the approbation of every scientific man in his closet, but by the flourishing state of a large society, established on the principles it inculcates, and which are amply exemplified by the talents and the assiduity of the editor. The present edition differs from those which have preceded it, in the arrangement of its parts, in the matter super-added, and in the improvement of the tables. Of the first, Mr. Morgan speaks in the following manner:—

'All that related to the same subject I have endeavoured, as far as circumstances would permit, to bring together; so that some of the chapters which composed the second, now form a part of the first volume, and on the contrary some chapters in the first are transposed into the second volume. By this means the whole is at least rendered more methodical, and the reader, in consequence, when studying any particular subject, will not be interrupted, as in the former editions, by having to examine different parts of the work before he finds all that has been written in it on that subject.' Vol. i. p. xiii.

'It is necessary, however, to observe that in this new arrangement not the slightest variation has been made in the text, nor has any other improvement been intended by the notes and alterations in this edition, than to methodize the general plan of the work, and as far as possible to follow Dr. Price's practice of extending and adapting the information it contains to the circumstances of the present time.' Vol. i. p. xv.

The editor's additions consist in a very valuable preface, and a variety of notes, of which we need only observe, that they are worthy the man who has given, in the papers of the Royal Society, such proofs of intimate acquaintance with the subject in question, as have never before been offered by any other person. A complete statement is, moreover, added of the intercourse between Dr. Price and Mr. Pitt, on the subject of the national debt, tending to illustrate the conduct of the late minister, 'who, whatever may be his pretensions in other respects, does not appear to include gratitude in the list of his virtues.'

The account of various societies, in former editions, was very interesting. This is continued in the present; and, as the Equitable Society is the most prominent of any, its prosperous state, as here exhibited, must be gratifying, not only to its numerous members, but to every reader who takes a pleasure in observing the constant exercise of prudence and liberality in the execution of an admirable plan.

'The Equitable Society, since these observations were written in the year 1783, has increased so immensely both in the number and magnitude of its insurances, as to become an institution of the first importance. In the year 1786, after a minute computation of the value of each separate assurance, the addition of $1\frac{1}{2}$ *per cent*, which had been made to the claims in 1782 for every annual payment prior

to that year, was increased to 2½ *per cent.* In the years 1791, 1793, and 1795, still farther additions were made, amounting together to 4 *per cent*; so that the claims on all assurances of an earlier date than 1774 were more than doubled, and even those of so late a date as 1783 were increased nearly one half. But although the society never hazarded an addition without a thorough conviction of its safety founded on a comparison of the claims with the premiums and on the decrements of life among its members in each year, it wisely determined to proceed no further with these additions till the same investigation of its affairs had taken place, which had been first instituted in 1776, and repeated in 1786.—Accordingly, in the year 1800 this work (which from the increased number of assurances had become a most arduous and toilsome undertaking) was accomplished, and the result proved so highly favourable that another addition of £.2 *per cent* was made to the claims, so that at this time the assurances of 1790 are increased £.36 *per cent.*; those of 1780 £.105 *per cent.* those of 1770 £.190 *per cent.* and those of 1762 £.258 *per cent.* making in the whole a sum which in present value would fall very little short of half a million!—It is unnecessary to expatiate on this subject, in order to shew the great benefit which this society has proved to the public.—Proceeding always as it has hitherto done on the sure ground of computation, it never can incur any material danger.—The many thousands of which it is now composed render the decrements of life almost uniform among its members, and from the experience of more than thirty years those decrements are found to be even one third lower than they are in the table from which the premiums are computed. Provided therefore the same care is used in excluding bad lives, every addition to the business of the society must be an addition to its profits.—The increased number of members, by preventing it from being affected by any particular season of mortality, will also render those profits more uniform and secure; so that the stability of the society will be strengthened in proportion as its usefulness is extended.

'The only danger to which it is exposed arises from the greatness of its capital. If due regard be not paid to the immense demands which must hereafter come upon it.—If on the contrary this capital be considered only as an accumulation of profit, and the members on this supposition should be tempted to make too frequent additions to the claims, the consequence, though distant, must ultimately be fatal. Hitherto great prudence and discretion have been manifested in the management of this society. No measure has been adopted which had the least tendency to diminish the capital without a previous investigation; and in order to secure the same prudence and discretion in the future conduct of its members, the society has lately provided by certain laws, "that no allowance to claimants shall ever be made without a previous investigation of its affairs and the concurrence of four-fifths of its members at three successive general courts, and also that such allowance shall in no instance exceed two-thirds of the clear surplus stock of the society." By these restrictions, as far as human precaution can operate, the danger of intemperate measures is avoided; and there is every reason to hope that an institution, founded on such liberal principles and defended by such wholesome provisions,

will not only be secure, but continue to improve in credit and prosperity.' Vol. i. p. 191.

On some other societies, Mr. Morgan has passed a judgement which they would do well to weigh seriously: but he properly observes, in several places, that the fluctuation of stocks is a great impediment to every plan founded on the justest principles; for it should be recollected, that all societies, formed on principles of lives and payments, depend also on the interest of public money, and that the state of public credit must have a very considerable effect upon their operations. Hence, ill-constituted societies may be supported at a critical moment, in which, if money had maintained its original value, they must have sunk; and others, which have been formed on juster principles, may, for the same reason, in consequence of an opposite turn in public credit, meet with destruction.

On the subject of the national debt, it is amusing to see the terrors of writers a few years back, and the apathy with which we endure its increase to a magnitude far beyond the utmost bounds of their imaginations. Even the editor himself seems to entertain greater fears than we should have expected from his judgement. If the debt have increased, the means of paying it have increased also: but it is dangerous to speak on such a subject; for, however capable a high-spirited nation may be of sustaining great burdens, yet the idle and extravagant additions made to them by the late minister must be severely felt; and a continued course of the same profusion must bring with it inevitable ruin.

The grand dispute, on the population of the country, is not, in the opinion of the editor, by any means settled by the late attempts to ascertain it. The gloomy apprehensions of Dr. Price are well known: the returns made from the parishes were calculated to counteract them; but, if such be not to be depended upon, it is to be lamented that the public was put to so unnecessary an expense.

'In consequense of an act of parliament passed for that purpose in the year 1802, a survey was made of the population of the kingdom; when it appeared from the accounts delivered in by the different surveyors that the number of houses in England and Wales amounted to 1,633,899, the number of families to 1,896,723, and the number of inhabitants to 9,343,578—of whom 4,715,711 were males, and 4,627,867 were females.

'These accounts, if they be correct, seem to contradict both observation and experience, not only in giving the proportion of inhabitants to a house much greater than they have been found in former enumerations, but more particularly in making the number of males to exceed that of the females;—a circumstance I believe seldom or ever [*never*] known to have taken place in any other part of the world. They exhibit also the curious phenomemon of every five houses throughout

the kingdom containing six families, while there are more than 57,000 houses untenanted!—Admitting, however, the accuracy of these statements, and what a melancholy proof do they afford of the impoverished condition of the country? Out of one million and a half of houses, above 800,000 are excused on account of poverty from all taxation; and even of the remainder almost one half are so wretched as to be altogether exempted from the window-rates, and to be charged only with the payment of three shillings a year for the house-tax.

'From a view of the manner in which this survey has been formed and conducted, it is hardly possible to imagine a measure so ill-fitted for obtaining any useful information. It appears to have been instituted for the mere purpose of determining a controversy; and even in this it has totally failed of its object. Whether the population of the country increases or diminishes;—in other words, whether the gloomy opinions of Dr. Price are better founded than the more sanguine assertions of his adversaries, is a point which must still remain the subject of future discussion. From these statements no accurate judgment can be formed. They leave the question involved in the same uncertainty in which they found it, and are likely to serve no other end than that of continuing the dispute among those who are more eager to maintain an hypothesis than to acquire a real knowledge of the truth.

'Had the number of births and burials been given in each district during the last three or four years—Had a separate account been taken for each year of all the children under the age of five years—Had the rest of the male and female inhabitants been divided into distinct classes from the age of 5 to 10 years—from the age of 10 to 15 years, and so on for every five years to the extremity of life;—not only would the actual state of the population have been obtained, but also such further information in political arithmetic as would have been highly important to this country. It is to be hoped, therefore, if another survey should ever take place (and I am sure the necessity of it is not lessened by the late costly attempt) that those who shall have the management of it will recollect, that in order to ascertain the real state of the population of the country, a more complicated process is necessary than the mere enumeration of its inhabitants.' Vol. ii. P. 210.

Mr. Morgan's opinion must have great weight; yet, although implicit confidence may not be placed in the late census, the general opinion is much in favour of an increased population. The attention now paid to the subject, will, in a course of years, throw further light upon it. They who have been in the way of marking the process taken to determine the number of inhabitants in a large country-parish, will readily conceive how little is the dependence that can often be placed on lists so obtained.

But Mr. Morgan's merit is more conspicuous in the formation of tables, and the establishment of theorems on lives and annuities. In these he stands unrivaled; and his experience is equal to his theory. Hence the work before us contains a body of information which must be perused with avidity by every

person who is engaged in calculations on lives, annuities, or reversionary payments; and the societies formed for these purposes will look to this quarter for every thing valuable in their establishments. It is a work which needs no praise of ours to recommend it to the public; for the names of the author and the editor stamp on it a value which is seldom attained by any writings; and we shall hope that the latter will continue his useful labours, so that, at a future period, he may produce another edition, as much superior to this, as this is to all that have preceded it.

ART. IX.—*An historical and political View of the Disorganization of Europe: wherein the Laws and Characters of Nations, and the maritime and commercial System of Great Britain and other States, are vindicated against the Imputations and revolutionary Proposals of M. Talleyrand and M. Hauterive, Secretaries of State to the French Republic; by Thomas Brooke Clarke, LL. D. &c. 8vo. 5s. Boards.* Cadell *and* Davies. 1803.

THE publication of M. Hauterive, and the assertions of M. Talleyrand, had it professedly in view to excite the indignation of Europe against Great-Britain, and a jealousy of the power she has acquired within the last century from her maritime influence, and judicious attachment to the commercial system. To repel these insinuations, the work before us is written; and the effects of the commercial system of England are advanced in opposition to the warlike system adopted by France. By the former, Europe is proved to have been benefited; to the latter, the late convulsion is attributed. There cannot be a doubt, in any rational mind, on the comparative merit of these two systems: the accompaniment of war is destruction, its object increase of power; the effect of commerce is augmented wealth, and its end a distribution of mutual benefit between the countries within its reach. But France never entirely relinquished the commercial, nor Britain the warlike, system. In France, commerce was subservient to war; in Britain, war to commerce. The disorganisation of Europe is a term to catch the imagination. Britain could effect little, from its insular situation, either to prevent or to promote it; but, if France may be accused of an atrocious crime in this respect, it will be difficult to free Britain from a similar charge; for the latter has more effectually contributed to the disorganisation of India, than France has to that of Europe.

The simple fact is, that both states have pursued their own aggrandisement, according to the circumstances in which they have been placed—Britain with her fleets, France with her armies.

As long as the world lasts, if the same respect be paid to brutal and mechanical force as at present, and nations cultivate the base arts of destruction instead of those of mutual support and happiness, the organisation of Europe will occasionally suffer changes similar to those already experienced. The Austrians, the Russians, and the Prussians, disorganised its state by the partition of Poland: France disorganised it again by the increase of her own territories, obtained in a war against those who endeavoured to interfere in her internal form of government. Who ever did, or ever can, declare Europe to be in such a state of organisation, that it is not to be, and will not be, altered by the next generation?—Treaties cannot bind the industry of nations; and states will grow richer, or weaker, by internal prudence or mismanagement; and their relative situations will, like the lunar disc, be in a state of perpetual variation.

The present arrangement of Europe is totally different from that laid down by the politicians at the celebrated treaty of Pilnitz: but no one can imagine that the French had at that time arranged the plan for seising their newly-acquired possessions. The plans of the disorganising monarch (or shall we call them rather the intended organisers?) were frustrated by unforeseen events: such events put an end to the anarchy of France, and gave her once more an organised government, and a government powerful enough to compel the nations on the continent to submit to her terms. It was as natural for France to avail itself of those events in Europe, as for Britain to do the same in India. The writings either of Messrs. Talleyrand, Hauterive, or the present author, will not prevent their operation. It is fine language to assert, that,—

'When the great principles of rights, with respect to the commercial and maritime systems, are menaced, the vital germ of the welfare of the world is at stake. The stroke which shocks the commercial system, pervades the industry, products, manufactures, opulence, and happiness, of the whole globe with universal injury.' P. viii.

The great principles of rights, with respect to commerce, are much the same as those of the rights of man: they serve very well for the discussion of the closet; they may head a treaty or a code of laws; but experience affords too strong a test of the little value affixed to them by every party, when it suits their convenience to set them at defiance.

In this publication, Russia, Prussia, and Britain, are each vindicated from the charges of disorganisation and revolution—charges which are brought home to France herself; and history is ransacked for instances of her attempts at aggrandisement. Many of these, indeed, are little to the point, as to the present

state of affairs: but the foundation of the late revolution is justly stated to have been laid in the reign of Lewis the Fourteenth; and various circumstances, which to superficial observers appear as causes of the late convulsion, are considered only as the effects of that reign. Indeed, it is impossible that the papal and the feudal systems should long maintain their ground in any kingdom. Force and fraud must come to a termination; and it will be happy if the commercial system do not occasionally bring any evils with it to the injury of mankind. Its benefits are apparently great: luxury, however, is a certain consequence; and perhaps the improvement of the mind may be at a stand, when the world is chiefly confined to operations of trade. Our author's views of commerce are, however, in general, enlarged and just; and he vindicates our predilection for a commercial system, as well as refutes the insinuations of his adversaries. On M. Hauterive's recommendation of the exclusion of British commerce to all Europe, we meet with the following observations:—

'I am slow to condemn any public arrangements formed by statesmen, because I conclude that they tend, or at least are formed with a design to tend, to some national advantage; and that no stranger can well possess a sufficient knowledge of internal circumstances to justify his condemnation of any new system. But if I consider the plan suggested by the counsel of Mr. Hauterive in the light of a general proposition, I differ with him altogether. And my reasons are as follow: It is the interest of every nation to purchase her necessaries where she can get them best and cheapest. If she does otherwise, she wastes so much of her capital stock as amounts to the difference between her purchase of a good and cheap article, and of a bad and dear one. So much of the stock is lost in the first instance, as might be applied to, and would put in motion, some other branch of industry. In the next place, this dear and bad purchase operates doubly upon the consumer; from the badness and quick destruction of the article, and from the dearness of price: the operation of dearness is immediate, and affects the low class of consumers, as the dearness of food, &c. for it renders one of the articles of their consumption at an higher rate than what it might otherwise be purchased for, and consequently forces them to sell their productions at an higher rate than what they might otherwise be sold for. And if we extend this view of effects to the higher classes, it is obvious, that, in as much as the purchase of one article requires an increased portion of their income, it diminishes their consumption and encouragement of the other branches of industry. The third consideration on this point is still more important: whenever articles, which are under prohibition, can by any means be got cheaper and better than those which are allowed to monopolise the market, the former will certainly be obtained. England, with all her cruizers and coast officers, and France, with all her interdictions and confiscations, never can prevent it. What then ensues? Loss, or perhaps ruin to the fair trader, and encouragement to rational immorality. The fair trader becomes perhaps a smuggler; and the whole nation is taught to de-

spise, and to live in disobedience of the laws; than which a more dangerous and deadly example cannot arise in society. If the people become once deaf to the voice of the laws, its cries will soon be heard in dissolution. This system, therefore, as a general consideration, is extremely vicious. It is one of the most dangerous kinds of monopoly. It is prejudicial in the extreme to the manufactures of the monopolizing state, whereof I could cite numerous examples to demonstrate, that where no emulation exists, no improvement will ever take place.' P. 172.

As to the situation of our own country, some doubts may be entertained from the writer's own positions; and the facts alleged by him may be converted to the opposite purpose.

'The coinage of a country being the circulating medium of barter, it is the barometer which marks the rising state of trade and industry. As the one increases the other augments; and the growth of both demonstrate [*demonstrates*] the growth of opulence.

'It appears, by the returns from the British mint, that the coinage, in the reigns of William, of Anne, of George I., and of George II., amounted to above thirty-three millions; whereas, during forty years of George III., it amounted to above sixty-two millions.' P. 190.

This is called 'a glimpse of the growing prosperity of Great-Britain:' but, unfortunately, this barometer, which in three of the above-mentioned reigns continued at a high point, has been lately, and is still, so depressed, that, of these sixty-two millions, not a trace is left; and paper occupies the place of coin. Hence either our author's test is fallacious, or the country must be in a very wretched and impoverished situation. For our own part, we can easily conceive a country to be great and powerful, where the use of gold is altogether unknown. On the next fact, there seems to be an error in reckoning. From a manuscript in the British Museum, it appears that the value of the nation was estimated, in 1688, at 650 millions, while it is now estimated at 2625 millions; consequently, it appears that the British nation is now four times as rich as at the revolution. But here the comparative value of money is forgotten; and there are many who will assert that 650 millions of money, at the revolution, would produce four or five times as much as at present. At any rate, the ratio is not that of 262,5 to 65.

On the nature of inclosures, there is room for much discussion: 2,804,197 acres have been inclosed during the present reign; which is nine times as much as in the three preceding; and—

'Surely these facts' (says the author) 'prove, beyond all doubt, the growth of agriculture: and consequently we may fairly infer from hence an increased supply of corn.

'Formerly we exported corn; of late years, however, we have imported it; and the result of both forms collectively an amount of above

four millions yearly (£.4,700,835.) Thus it appears, that we have had supplies from abroad, beside the additional supplies at home; and from both of which it is reasonable to infer an increased consumption, or in other words, an increased population.' P. 198.

Now these additional supplies at home may be justly doubted. Inclosures are by no means favourable to the increase of corn; and the writer needs only look into an inclosed country to be convinced of the unfavourable difference between the number of acres laid down for corn in its inclosed and its open state.

But we would not criticise too closely our author's arguments, and are more inclined to think favourably with him, than to despond. The picture he draws of the present state of the country is so flattering, that no one would wish to detect a single flaw it may contain. 'Our commercial system,' says he,

'has displayed its effects within Britain, through her civil liberty, internal order, prosperity and power. As to our civil liberty, if viewed (1st.) in its source, that is, our constitution; and if beheld (2d.) in its results, that is, the protection of our lives, liberties, and properties, neither Rome in all its pride, nor Greece in all its glory, invested its citizens with such rights as a subject of Britain at this day may boast of. As to our internal order, it is so wisely founded (1st.) upon our civil government, that when nations were shaken to the centre by a shock that pervaded the globe, Britain scarcely felt its influence: (2d.) it is so wisely founded upon our moral government, that when surrounded by awful and contagious vice, the virtues of Britain remained sound and incorrupt. As to our prosperity, it transcends the bounds of parallel, and almost of credibility, were there not authentic documents whereby the unerring facts of our growth in strength and opulence are demonstrated clearly and incontrovertibly. No enthusiast in his imaginary prospects could have surpassed, none has kept pace with its real progress. Such is the improved state of our financial strength, that it not only alleviates our burdens at present, but accelerates their total removal. And in addition to these important effects there exists another of great magnitude and consideration, namely, without one farthing of further increase to our taxes we are prepared for war, by a growing provision already formed for the redemption of £.275,980,827. As to our power, that let our victories tell. But our growing commerce, national and capital finances, our extended agriculture, population, and force; our increased and still increasing strength and opulence, all prove our resources to be more than adequate to our necessities. Such are the results of our national economy in all its parts; and so proud and so wise a period no nation could ever boast of.' P. 206.

ART. X.—*Narrative Poems. By I. D'Israeli.* 4to. 4s. 6d. *Boards.* Murray. 1803.

AN ode, which precedes these narrative poems, prematurely expresses the fears of the author lest some ravenous critic should cruelly pounce upon his loves:—

——————— 'LOVES like THESE,
Thine owl as butterflies shall seize.'

OUR owls never quit their secret recesses to PREY upon butterflies, but are often allured from embowering shades to mark and admire their 'gaily-gilded trim.'

The brilliant insects of Mr. d'Israeli flutter, in no vulgar array of paper or type, on variegated wings of tender, elegant, and attractive colouring, mingled with gaudy tints of affectation, and dusky spots of incorrectness. To discriminate his offensive hues must exercise the keen glances of his 'favourite critic.' WE shall attempt to amuse our readers by his more fascinating dies.

The '*Carder and the Carrier*,' '*Cominge*,' and a '*Tale addressed to a Sybarite*,' are titles to the poems over whose airy texture our eyes are wandering.

The influence of the graceful *carder* is elegantly described.

'If o'er the flax, her tapering fingers strayed,
On the light fibres of his heart they played,
Or shooting quick the line along the frame,
The shifting shuttle would his heart inflame;
Quick as her wheel, her eyes their radiance dart,
And restless as her wheel, his fluttering heart!' P. 3.

Our *young* readers will not be insensible to the lines—

'Minutes are drops of time—Love's feverish rage
Drinks days and months, and thirsts, and asks an age!' P. 8.

PASQUIL, the amorous carrier, 'with a thousand fancies wild,' in dalliance with his mistress amidst bowers of Arcady, perishes by an accident strangely poetical.

'With laughter gay her rosy lips unclose
Two lines of polished pearls in even rows;
He, while his sparkling eyes wild fancy warms,
Asks, what fine art that ivory beauty forms?

'She said (while modesty her cheek suffused)
For simple charms may simple arts be used;
Cares for her teeth a maiden's thoughts engage;
Each morn I press them with a leaf of sage.

'Beside the laughing boy, a sage-plant grew,
That in luxuriant growth its foliage threw;

He tried the verdant leaf with art to strain,
The verdant leaf but yields a darker stain.
She caught the leaves, and with a gesture bland
Played o'er his teeth her soft and sportive hand.' P. 12.

In the *égarement* of her passion, the lady had unfortunately mistaken a *poisonous* plant for the sage-leaf.

'Hark, from his quivering lips a parting groan!
She leans, his figure seems to sleep in stone!
Cold on her neck his marble arm is hung,
Cold to her breast his marble face is clung.' P. 14.

The '*Bee of the Glaciers*' attracted us *en passant*.

'Ah, me! in Pleasure's warm delicious scene,
When man but sports, comes hideous Death between!
So near a glacier oft, his race of glee,
All light with life, attempts some wandering bee;
Deep in the juniper's sweet shrubs to rest,
Darts his sharp trunk, and loads his little breast;
Now glittering in the sun he winds along,
The child of heat, of sweetness, and of song!
When lo! the rushing storm, the snow-wind's tide,
Sweeps the poor vagrant up the glacier's side,
To instant death the summer's inmate brings,
And fixed in frost he spreads his gelid wings *.' P. 15.

We were pleased, too, with the pathetic exclamation of humble love.

'Born in Desire and nursed by chaste Delight,
Our infant Love the stranger eye would fright;
The child of Solitude and Fear would fly,
Nor to the world would trust it's infancy.
Think not, ye rich! in Poverty's rude sphere
We feel no rapture from a heart that's dear;
Think not, ye delicate! we take no part
In all the tender magic of the heart.' P. 19.

The catastrophe of the poem is affecting:

'Bowing her head, the plant of poisonous breath
She sucked, and blest the vegetable death.
Quick thro' her veins the flying poisons dart,
And one cold tremor chills her beating heart.
She kneels, and winds her arms round Pasquil's breast,
There, as 'twere life to touch, she creeps to rest;
On him once more her opening eyes she raised,
The light died on them as she fondly gazed;

'* The bees flying about the neighbouring rocks, to regale upon the flowers of Genepi, are frequently surprised by storms, which hurrying them up the glacier, they must perish almost instantly. We found in an almost inaccessible solitude a number of dead bees, but no other animals.—Bourrit's Journey to the Glaciers of Savoy.'

With quick short breath, catching at life, she tried
To kiss his lips, and as she kissed, she died.' P. 20.

For the subject of 'Cominge,' the poet is indebted to a novel of madame Tencin.

To the monastery of La Trappe, *Cominge*, unfortunate in his loves, had retired. In the same monastery, his disguised mistress, who had long remained unknown, concealed as a monk of the same severe order, is discovered by Cominge in the agonies of death. The 'favourite critic' of Mr. d'Israeli might perhaps remark, that an adorned narrative, of various adventure, is not entirely accordant with the situation of a dying woman.—The *Eloïsa* of Pope seems to have been perpetually present to the author of this poem, and to have animated its embellishments.—We discover descriptive and pious passages.

'Twas where La Trappe had raised its savage seat,
Of grief and piety the last retreat;
And dark the rocks, and dark the forest lay,
And shrill the wind blew o'er the abbey grey,
House of remorse, of penitence and care,
Its inmate Grief, its architect Despair! P. 23.

'Oft by some river's brink, with wistful eyes
Leaning I viewed the soft inverted skies;
How oft, my spirit darkened by despair,
I breathed a sigh to find a passage there!
Yet then with sweet enchantment to my mind
On Earth's green bed some curious plant inclined;
Some tender bird the woodland song would troll,
And leave the melting music in my soul;
Gazing on lovely Nature while I grieve,
I think on Nature's author—fear and live!' P. 33.

'The air was still, the sleepy light was grey,
When faint and sad I crossed my hands to pray;
The evening star illumed her bashful beam;
The holy abbey in the twilight gleam,
Breathed a celestial calm—How rapturous stole
The oraison from my delighted soul!
'Twas inspiration all, ecstatic prayer!
I bend, and lo! a vision fills the air!
Heaven opens here, and here its seraphs dwell!—
I hear your vesper's sweet responses swell!
Amid the choral symphonies ye sung,
I hear the warblings of my lover's tongue!' P. 34.

To the 'sultry souls' of his Sybarites, the poet offers unreal delights in alluring diction.

'Imagination; beauty of the soul,
Thy charms mysteriously the sex controul;

With thy celestial grace, a spirit blest
Opes an Elysium in a woman's breast;
Moves like a god to her enamoured eye,
And makes perpetual her delicious sigh.' P. 47.

Perhaps *dreams* will scarcely induce *Sybarites* to exclaim—

——— 'What Genius gives this thrill intense,
Charming my senses with a novel sense?' P. 49.

Our owls have now sagely remarked MANY beauties, and *dropped* no *gall* on the butterflies of Mr. d'Israeli. We trust we may retire with the hope that we have merited the eulogium in his ode—

'There are among *ye* SOME, whose soul
The spells of Fancy can control.'

ART. XI.—*On the State of Europe before and after the French Revolution; being an Answer to 'L'Etat de la France à la Fin de l'An VIII.' By Frederick Gentz, Counsellor at War to His Prussian Majesty, &c. &c. Translated from the German by John Charles Herries, Esq.* 8vo. 8s. *Boards.* Hatchard. 1802.

THE state of France is described by M. Hauterive with a flattering pencil; and, if he had not so incessantly attacked the British character, no one could complain of his endeavours to exalt his own country. A native of England, on the contrary, might be suspected of partiality, were he to attempt a refutation; but a Prussian may be supposed to enter upon the task without any undue bias. Mr. Gentz is well known as a proficient in the science of politics; and the translator has been happily engaged in communicating his merits to the English reader. The pretensions of the French are examined with great coolness and moderation; their grounds of complaint against the English are investigated with precision; and the balance turns with apparent impartiality in our favour. In considering the political state of Europe before the revolution, our attention is chiefly directed to the treaty of Westphalia, and the inquiry whether a system of public law was thereby established in Europe. Upon this point the author discriminates, with great good sense and logical precision, between a system of public law for Europe at large, and that system which was limited to a regulation of an individual part of the continent; and he shows that this famous treaty has always been misconceived, when considered in so extensive a sense.

'The peculiar merit of this famous treaty, is, in fact, entirely confined to Germany. It was by fixing the uncertain relations between the

emperor and the states of the Empire; by determining the extent and limits of the sovereign authority of the German princes; by defining more accurately the competency of the tribunals of the Empire; and, above all, by deciding, in a manner equally just and wise, the most important question at that period—the differences between the two religious parties, and assuring to each its rights, its freedom, its possessions, and its due share in the constitution of the Empire, that this treaty became a beneficial and fundamental law for Germany; and such it has remained, notwithstanding the vicissitude of events, even until the moment when, according to the assertions of modern politicians, "there no longer existed any fundamental law or law of nations." P. 10.

The effects of subsequent events on this treaty are next examined; and these are chiefly confined to the civilisation of Russia, the elevation of Prussia, and the commercial and colonial systems. On each of these subjects we meet with remarks apposite, and worthy of a true statesman; and the notion that the commercial system has been destructive of the law of nations is completely overthrown.

'If it be true that the system of commerce and colonization was one of the fruits destined to grow and ripen in the soil of society, the roots of this system must be somehow connected with those of the whole social constitution. The natural propensities of man, particularly those of which the general and constant influence determines the fate of society, are seldom found in contradiction to each other. That there should be any great spring of human action in its nature inimical to society; tending to involve nations in endless hostility; to subvert the law of nations, and even render its existence impossible; and finally to bring about the decay and ruin of empires; would be extremely unnatural, and is therefore very much to be doubted. The system of commerce, with all its errors, could not produce such effects, and in fact never has: that in some instances it has been the cause of wars, is certain: but what has not been the cause of war? That it has sometimes created discord in the federal constitution of Europe, will not be denied: but can such a constitution be expected to exist without periodical disturbances? Upon the whole, the system of commerce, with all its consequences, the pre-eminent riches of some countries, their naval power, their foreign possessions, and their new influence (disproportioned to the extent of their European territory), had adapted itself exceedingly well to the former social relations of Europe; and if extraordinary and unexpected convulsions had not, from the year 1789, shaken the whole edifice to its foundations, and loosened every part of it, the question, Does there still exist a law of nations? would probably, at this time, have been absurd, notwithstanding all the changes occasioned or hastened by that system.' P. 45.

The aim of the French writer is to show that no system of public law existed either previous to, or at the period of, the French revolution; and, consequently, if that convulsion have prepared the way for one, notwithstanding its temporary evils,

the consequences have been beneficial to Europe. But the present author, with great justice, denies the position; yet he allows certain points, to which we as readily give our assent.

'1st, There existed in the internal, social, and domestic state of most European countries, and particularly of the French monarchy, certain discordances, such as might lead to great convulsions, and which, when those convulsions did take place, might in general be looked upon, with reason, as the preparatory causes of them; and secondly, the revolution has had the accidental good effect of discovering and pointing out, in the clearest and most impressive manner, to all governments, the imperfections existing in their former constitutions, or in the ancient federation of Europe.

'On the other hand, I am convinced, and I trust that all enlightened persons will now agree with me, that the condition of Europe in the latter times preceding the revolution, was not so desperate either in a social, a domestic, or a federative point of view, as to lead immediately to violent convulsions, or to render such convulsions desirable; that the French revolution, though facilitated, and in that sense prepared, by many social and political discordances, was by no means a necessary or unavoidable consequence of the state of France, much less of Europe; that this event, with all its dreadful consequences, was occasioned by some obvious errors of the former French government—was continued and completed by the untimely zeal, the ill-advised activity, the inability, the presumption, or the wickedness of those who, in consequence of these errors, were intrusted with the direction of the public affairs—and was converted into a principle of destruction for all Europe by the improvident measures of the surrounding nations; that, far from furthering the improvement of the condition of civil and political society, this revolution, on the contrary, has interrupted and arrested its progress at a moment when it appeared particularly promising; and that, when considered in a more extensive point of view, the greatest and most lamentable of the evils which accompanied it, was this: before the revolution there only needed a few wise reforms in the internal constitution of states, and some happy combinations for ameliorating and confirming the federal system, to have raised Europe to a high degree of prosperity and happiness; whereas now all the means of attaining to this desired object must be sought for amidst a heap of ruins, and drawn forth, as it were, from chaos again.' P. 65.

A masterly view is now taken of the relations in which the several nations of Europe existed towards each other before the revolution of France: the miserable plans of the coalesced powers against her, and their want of unanimity and perseverance, are deplored; and the writer advances, at last, to this true but melancholy conclusion—

'The political system which resisted the violence of so many storms until the French revolution, and whose strong foundations had defied the vicissitudes of fortune, and the lapse of time, has been converted into a heap of ruins by the revolution, and its necessary companion

the war. Europe, say the friends as well as enemies of the preponderant power; Europe has entirely lost its balance.' P. 215.

The grand question is then examined, whether this balance can possibly be restored? and, to decide fairly upon this point, the present relations between France and the other states of Europe are investigated. Here we also meet with another melancholy picture. The three great barriers of Germany against France—the independence of Holland, the Austrian Netherlands, and the countries between France and the Rhine—are broken down; Savoy is no longer an obstruction to Italy; Switzerland is become almost equally inefficacious; and the Pyrenees vainly rear their heads between France and Spain. What alliances can be formed between her and her neighbours? Those which are nominally so, with relation to herself and most of the bordering countries, are nominally so alone; they have nothing but the name, and are the mere clients of France. Yet England, not France, is represented by M. Hauterive as the natural enemy of Europe; and this brings the author before us to a minute inquiry into the supposed causes of complaint against us, founded on our commercial tyranny in the Navigation Act—the monopoly of Trans-European dominions—and that of British manufactures.

The Navigation Act, though not vindicated as wholly politic with respect to the cabinet which framed it, is justified against the complaints of other nations; and it is proved—

'That the British Navigation Act repressed the industry of other countries in one respect only—that of excluding the carrying nations from one of their principal markets; in every other, the commerce and industry of Europe remained unmolested by it.

'That this law was no source of the commercial greatness and riches of England. It operated, on the contrary, like all monopolizing statutes, prejudicially to the industry of the nation; and the extraordinary prosperity at which its commerce has arrived, must be referred to other causes.

'The Navigation Act was a wise regulation as far as it encouraged, though at the expense of the ordinary principles of political economy, a branch of national industry, which contributed to the security and independence of Great Britain. A good policy made it contribute indirectly to every source of the welfare and prosperity of the state.

'That supposing the Navigation Act to have been unwise, it can never have deserved the title of unjust. For it is neither more nor less than a regulation of domestic policy, for which a nation is not answerable to other powers. But since the wisdom of the act cannot, under the circumstances of England's situation, be called in question, every shadow of an argument against its justice, is, of course, done away.

'In as much as the British legislature went even beyond the Navigation Act, in prohibitive commercial statutes, the imposition of heavy duties on foreign produce, and other schemes of mercantile policy; and as far as it fettered the industry of its own and other coun-

tries, without being sufficiently justified by more important motives, it proceeded upon blameworthy principles. But what government in Europe can reproach the British nation on that account? The same mercantile policy has prevailed in every country, without exception, even to the present day. But, since the principles of political economy have no where been so thoroughly developed, and so extensively practised as in England; the presumption is in favour of that country, that it has, more than any other, abandoned the confined maxims of narrow-minded trade; a presumption which has been confirmed by more than one example, especially in the last twenty years.' P. 306.

With equal justice the charges urged against us, for the supposed monopolies of Trans-European dominions and British manufactures, are refuted. It is shown that no blame can attach to a nation for its endeavours to improve its commerce and manufactures, both of which are benefits to Europe at large; and, if British industry originally advanced them to a great height, the advantages derived from the convulsions on the continent were such as might be, and were naturally to be, expected from the ruin of commerce and industry, by the natives themselves, of so extensive a part of the continent.

'There is therefore nothing in England's commercial system, and in the influence of that system upon the welfare of other nations, which can support or justify the heavy charges brought against her. In her peaceful relations, we see her in constant and perfect harmony with the domestic interests of the social system of Europe. If she have in any way deserved the reproaches of her numerous adversaries, the causes must be sought in other relations; they must be founded on her conduct in war, towards countries not immediately engaged in it; and on the abuse of her well-earned superiority in her oppression of the weak.' P. 357.

So able a vindication of our country must doubtless be flattering to every one who is satisfied with the general rectitude of its conduct, and wishes that the nations on the continent should view it without jealousy or distrust; but, for other reasons, we recommend this work in the strongest manner to all who are—and who is there that does not pretend to be?—interested in the affairs of the state. It is a treasure of political knowledge, not written with a view of indulging any particular hypothesis, but embracing, as a general question, the mutual relations of the states of Europe to each other, the causes that affect them, and the conduct to be observed for the common happiness of mankind. From our insular situation, from the importance of the house of commons, from the little necessity of general knowledge to obtain a seat in that assembly, and the constant agitation of domestic parties occupying almost universal attention, few among us study what may be called general statistics; and even statesmen might be mentioned, whose whole experience and turn of thought have never extended be-

yond the internal affairs of our own island. To secure a borough, or a majority in the house, is of more consequence with them, than an inquiry into those actions which might promote discussion in foreign cabinets, or, by a proper direction, might tend to the external benefit of their country. To such persons, the studies of M. Hauterive and Mr. Gentz may afford very profitable instruction: the accusations of the one are severe, and likely to produce a deep impression against us in the minds of those who are unaccustomed to close reasoning: the refutations by Mr. Gentz are solid and judicious, and open a wide field of political information, by which the reader may not only be guarded against the fallacious doctrines of the French, but derive a variety of sound maxims to conduct him safely through the labyrinth of modern politics.

ART. XII.—*Leopold; or, the Bastard. 2 Vols.* 12*mo.* 8*s. sewed.* Highley. 1803.

IN this department of our literary warfare, we are condemned to much tiresome drudgery—to read what never was nor ever will be read—to view a succession of passing spectres, who leave not a track of their existence, and pore over still-born brats that cannot be said to have ever lived. We welcome, therefore, with more than common pleasure, the companionable traveler of our weary way; and, though he may be sometimes a little tedious, or trite and hackneyed in his remarks, we reflect on those with whom our hours are more commonly spent, and hail this new companion as an acquisition. Somewhat of this kind were our feelings in perusing the work before us; and we were not *greatly soured* by the introduction, which perhaps the author, from good manners, or even policy, might have spared. Why should he step out of his way, to attack those whose aim is to proportion their praise and censure to the real merit or faults of a work, who *wish*, at least, to be candid and correct? Even in a political view, the writer is in an error; for where is the work that will challenge an inquisitive examination? what writer will bear the probings of critical investigation, without sometimes feeling a smart? Reviewers, however, have been always '*fair game;*' and those who are apparently most callous in public, we have found most acutely sensible in private. We mean this, however, as a hint to our author; and, if we guess at him rightly, he will feel it as we could wish. The Bobadilian independence is often accompanied by Bobadilian terrors.

We offer these suggestions to the author, in return for those with which he has favoured ourselves. We plead guilty to the charge

of delay; and, while we submit to some share of the blame, much excuse must be allowed to the multiplicity of important works ever before us, and to the contracted limits of our little circle. The success of any work, it is said, is decided on before the condemnation appears: but, to parody the author's remark, our 'brother scholars' will not be displeased at finding their opinions confirmed by critics of reputation; and 'meaner capacities' are not always unwilling to be taught.—It is time, however, to turn to the work itself; and we at least hope that our article may anticipate the reception of the novel, in this instance, be it what it may.

The 'Bastard' rises above the common herd: it is written with freedom and ease, in a style which engages by its simplicity, without offending by any glaring incorrectness. The story is well introduced, and skilfully conducted: the characters are ably drawn, and sufficiently discriminated. On the whole, however, this work has not that degree of excellence which would raise it to the highest ranks: it wants the bold originality of the best authors, the animated descriptions of others, and especially the varied delineations of life and manners, which so warmly interest us in the works of miss Burney. In the latter point, indeed, the author may sometimes challenge a parallel; and, if the incident of the fictitious nabob be a little too much strained, and rendered improbable from its high colouring, similar faults may be selected from the best novelists.

The character of Leopold is drawn with peculiar spirit and ability: his quick feelings of pride, his apprehension of insult from the stain of his birth, the indignation excited at the slightest disrespect, amount almost to mental disease—disease neither uncommon nor unnatural. Yet he is generous, affectionate, and friendly. His pains and difficulties are artfully increased, by the introduction of an impostor, who, when Leopold had escaped from his father's house, and it was unknown where he was concealed, assumed the name and character of lord Dormer's natural son. The warm, giddy, romantic attachment of young Marchmont is well preserved through the whole; and even the under characters, among which we reckon the Epicurean lord and his helpmate—his former cook, whose familiar vulgarity, though not new, is by no means trite and disgusting—fill the drama with sufficient variety.—We need not proceed further; but shall select a specimen which will better admit of a separation from the rest.

"And," asked Mr. Marchmont, "is Mr. Craven one of those unreasonable men who must be convinced of the propriety of a measure before they will sanction it?"

"If he is, he must be fool-hardy," added another.

"Or very independent," rejoined a fourth.

"As to his independence," resumed the gentleman who disapproved of him, "I know not any thing of that; but this I know, that he is nobody; he cannot even tell who was his father."

"Perhaps you can."

"No—yes—that is, I know that he is some person's bastard."

"Then," replied a clergyman, who had the day before preached a sermon upon charity, "I earnestly hope he will lose his election; for we cannot expect our councils to prosper while such people are permitted to take a part in them."

"Then," observed Mr. Marchmont, "you will visit the sins of the father upon the children: is not this somewhat cruel, my good doctor?"

"Not exactly so, Mr. Marchmont, not exactly so; but I would certainly make a distinction; that is, I would make a difference between them and good men."

"But may not they be good men?"

"As to that, Mr. Marchmont, I should rather presume probabilities are against it; for I believe you will admit, that their fathers are depraved, their mothers are depraved, and that they are conceived in sin. Now, I think it is not uncharitable to conclude, that where the root is corrupt, the fruit cannot be sound. This, at least, is my opinion; and were I a lawgiver, I would render these children of iniquity conspicuously disgraceful; I would set them up as beacons to guard mankind from the crimes of their abandoned parents."

'Colonel Ashton, whose countenance had strongly expressed contempt for the speaker, and detestation of his sentiments, asked if his persecutions of those unfortunate members of society would not be increased or meliorated in proportion to the rank or insignificance of their parents.

"I do not clearly understand you," said the divine.

"Would you not be more lenient to the natural son of a lord, than to that of a plebeian?"

"Undoubtedly not."

"Then you confine your abhorrence to the innocent produce, not to the crime itself, nor to the guilty parents."

"Oh fie, sir! oh fie! it is plain you know nothing of my sentiments."

"My knowledge of them is, I confess, somewhat limited, nor do I see any probability of its being enlarged; for, in the several times that I have met you at the table of lord Dormer, they were different: but very likely you have one suit for the fathers of bastards, and another for persons of chastity."

'The doctor looked confounded. "If that be the case," cried Mr. Marchmont, "I would advise you, doctor, to appear very often in his lordship's livery, as one the best adapted to his opinion, and by far the most becoming to yourself."

'The doctor, who thought the word livery implied a sneer at his servility to the earl, eagerly exclaimed, "I wear no man's livery, Mr. Marchmont; I have my own opinions; I am no man's disciple."

'Colonel Ashton, exalting his head, and fixing his eye upon that ofthe divine, said, "Had you, sir, been a true disciple of him whose livery you wear, such sentiments as you have given utterance to,

would have found no harbour in your bosom. He would have taught you, that, to oppress the fallen, or aggravate the sufferings of even the guilty, was no part of his instruction."

"Well preached!" cried a young fox-hunter. "Devil take me, Ashton, if you are not a fine fellow. I think you had better start for the borough yourself, and then you can bring in a bill for naturalizing bastards."

"He would do better," said Mr. Marchmont, "if he could frame one for naturalizing their fathers."

"That brings us," said one of the party, "back to the doctor's friend, lord Dormer. I wonder what became of his little indiscretion?"

"He turned out a great one," replied another; "and is, if I am rightly informed, lately returned from the tour of New South Wales, where he passed seven years in teaching, instead of learning, the arts and sciences."

'The already agonized Leopold, unable longer to endure this conversation, rushed out of the room, and, shutting himself in his apartment, gave vent to the feelings of his indignant heart. He execrated his parents, the hour of his birth, and the injustice of an illiberal world, that punished him for crimes of which he was the unoffending victim. A gentle tap at his door interrupted his meditations. It was Ellen.

"Leopold," said she, "are you ill? You left the company in haste; what is the matter? Can I do any thing for you? Pray speak to me; you make me very unhappy."

'Her words sunk into his heart, and seemed to heal his lacerated fibres. He flew to her. "Dearest Ellen" was on his lips; but he checked himself, and only said, "I am perfectly well." His cheeks were still wet with his tears. She looked in his face, and, mournfully shaking her head, retired. He followed to a drawing-room. She seated herself, and, leaning pensively upon her hand, seemed lost in thought. He sat beside her, and, taking her disengaged hand, said, "and did miss Marchmont quit her friends to seek the forlorn Leopold?" With a melancholy sweetness she answered, "I saw that you were ill; Ferdinand was absent, and lady Caroline was not here; so I thought my services might be accepted." Vol. i. p. 146.

Though not in the highest rank, this novel will hold a respectable situation in the second class. It is entertaining, and by no means without interest. The reader who once takes it up, will, if unfinished, lay it aside with regret, and resume it with some impatience.

ART. XIII.—*The Philosophical Transactions of the Royal Society of London, abridged; by Charles Hutton, LL.D., F.R.S. George Shaw, M.D., F.R.S., F.L.S. Richard Pearson, M.D., F.A.S. Vol. I. Part I. 4to. Large Paper,* 18*s. Small Paper,* 10*s.* 6*d. sewed.* C. *and* R. Baldwin. 1803.

WHEN the first part of a similar work appeared in the course of the last year, we engaged in an extensive discussion

on the subject, noticing the history, the early progress of this annual publication, and at the same time glancing at the attempts of those who had endeavoured to convey its substance in a narrower compass. That abridgement is discontinued, for reasons which are not assigned. We noted some of its imperfections, which we touched with a gentle hand, intending rather to correct the errors, than impede the progress, of the attempt. We need not now conceal our opinion, that, unless it had been executed with more attention, it would have been very incomplete; and we were pleased to see the task undertaken by men of real science, and fully competent to the work. Perhaps more able assistants could not have been found, or more fully adequate to the varied contents of the collection they design to abridge. We have looked at their first number with some care; and it demands our applause. In general, their attention to the different articles is in proportion to their importance: the papers and numbers are carefully distinguished; the plates are sufficiently numerous and well executed; the biographical notices and other information from modern discoveries, in the margin, usefully illustrate the text. Yet we mean not to say that their work is perfect. In one or two instances, they seem to have curtailed too much. The product of the quicksilver mines at Friuli, of the whale oil in the Bermuda fishery, &c. would have occasioned little trouble, and filled an inconsiderable space. Some other slight omissions, of a similar nature, we have also noticed; but opinions may differ respecting their importance; and they are at most so trivial, as scarcely to be styled a blemish. If our opinion have any weight, every fact should be recorded; for, even if it be not true, it will give a view of the science of a definite æra; and it may be curious to know what once occurred, should there be any variation at present.

No introduction is prefixed: it will probably accompany the last number of the volume, or perhaps the conclusion of the whole; and we trust that the authors will proceed with unremitted care, and with attention constantly awake.—Let us repeat from our former article, that the hiatus, in the publication of the annual volumes, should be filled up from Hook's Philosophical Collections, and Birch's History of the Royal Society.

The present number extends some way into the second volume, and contains 184 pages—twenty-three sheets. On comparing it with the former Abridgement, this part made but 99 pages—little more than half.

To select specimens from so early a work would be to fill our numbers uselessly; nor could our readers judge of the execution, unless they had the original volume before them. We

shall therefore transcribe a specimen or two from the notes.—The first shall be a biographical extract.

'Mr. Oldenburg (who sometimes wrote his name Grubendol, transposing the letters) was a native of Germany, born in Bremen about the year 1626. He came to England, as consul for his countrymen, in the time of Charles the First, in which capacity he remained at London during Cromwell's usurpation. He afterwards attended some young noblemen, as tutor, to Oxford, where he became acquainted with the gentlemen who commenced the Royal Society, to which he was appointed the assistant under Dr. Wilkins, the first secretary, in which capacity he was very useful, by the extensive correspondence he held with the learned men of other countries, as well as by the arranging and publishing of the Philosophical Transactions, which he continued to do till the 136th number inclusive, June 25, 1677; when he was succeeded in his office of secretary, as well as in publishing the Transactions, by Mr. Hook. Mr. Oldenburg was a man of considerable abilities, and was very active in promoting the views of the society. He died at Charlton, near Blackheath, in August 1678, being only in the 52d year of his age.' P. 1.

We shall select one more specimen, with a view of rescuing the name of an able and respectable philosopher from oblivion.

'Mr. Lawrence Rooke, a distinguished astronomer and mathematician, was born at Deptford near Greenwich, in 1623. He was educated at Eton school, whence he removed to King's College, Cambridge, in 1639. But in the year 1650 he settled at Oxford to enjoy the company of several eminently learned men residing there, where he associated with those philosophers who afterwards formed the Royal Society. In 1652 Mr. Rooke was chosen professor of astronomy in Gresham College, London, which appointment in 1657 he exchanged for the geometry professorship. Having enjoyed these situations some years before the restoration in 1658, most of those gentlemen who had been accustomed to assemble with him at Oxford, coming to London, joined with other philosophical persons, and usually met at Gresham College to hear Mr. Rooke's lectures, and after the lectures withdrew into his apartments to converse together. These meetings at length gave rise to the Royal Society itself; of which great and useful institution Mr. Rooke was a zealous promoter; though he did not live till it received its establishment by the royal charter, as he died the 27th of June, 1662, in the 40th year of his age, universally respected and regretted.' P. 50.

The following are notes added to one of the articles in the twenty-second number, p. 391, entitled 'Toads and Spiders innoxious.'

'It is certain that the generality of common spiders may be swallowed with perfect impunity, the extremely small quantity of the poisonous fluid with which their fangs are provided, being incapable of injuring the larger animals. Several persons have been in the habit

of making this idle experiment: among others the famous Anna Maria Schurman is said to have had a propensity of this nature; jocularly excusing herself by saying she was born under the sign Scorpio. Several other instances of a similar nature may be found in the work of Rosel. Mouffet, in his history of insects, relates a story of a profligate quack, who was employed by a rich London matron to cure her of a tympany, which he had the audacity to attempt by giving her several spiders to swallow in the disguise of pills; stipulating that half the proposed reward should be immediately paid, and the remainder when the cure was completed. He then absconded; not doubting that he had poisoned her: but hearing some time afterwards that the lady was perfectly recovered, he immediately waited upon his rich patient, and apologizing for his long absence, received the remainder of his reward, with many praises for the efficacy of his medicine.' P. 146.

'With respect to the noxious quality of the fluid here said to have been received from the toad on the boy's lips, the account seems by far too exaggerated to deserve any credit; a slight temporary swelling being the utmost that can be supposed to have happened in such a case, even from those species of toad which secrete the most acrimonious fluid from their skin, as the *rana alliacea*, *mephitica*, &c.' P. 147.

In general, the authors profess to reprint the more important articles in the style and language of their respective writers, altering only the obsolete orthography. The less important ones will be greatly abridged; and, of the trifling ones, or of those whose subjects can be better known from modern publications or subsequent papers, only a very concise and general account will be given. All the plates will be re-engraven, except such as were inserted to illustrate the articles now considered as uninteresting; and all the articles in any foreign or dead languages will be translated, should the subjects admit of it.

'A detached volume will be published during the progress of the work, containing an historical sketch of the origin, progress, and present state of this distinguished institution; together with biographical memoirs of some of its most illustrious members—embellished with a well-engraven head of each.

'To each volume there will be two tables of contents; one corresponding with the numbers as printed; the other exhibiting the different subjects classed under their respective heads.

'This Abridgement will be printed in 4to. and published in parts, one of which, consisting of from twenty-two to twenty-five sheets, with a proportionate number of plates, will appear on the 1st day of every month, price 10s. 6d. Four of these parts will form a large volume. A few copies will be printed, in a very superior style, on royal paper, price 18s. each part. It is intended that this Abridgement shall not exceed eighteen volumes, and that the last volume shall contain a copious index to the whole.'

Having introduced this work, we shall watch its progress with a careful eye, though we may perhaps only announce the numbers as they succeed, unless any error should excite our attention, or peculiar merit demand our cheering approbation. We will conceal neither the one nor the other.

ART. XIV.—*Testimonies of different Authors, respecting the colossal Statue of Ceres, placed in the Vestibule of the Public Library at Cambridge, July the First,* 1803; *with a short Account of its Removal from Eleusis, November* 22, 1801. 8*vo.* 1*s.* Payne. 1803.

THIS learned little tract is, we understand, from the pen of Mr. CLARKE, who, having presented to his *Alma Mater* what remains of this celebrated statue, here offers the vouchers by which it is identified.

As a proper introduction to them, we are told that the mystic temple at Eleusis was erected by Pericles for the solemnities of the Festival of Ceres; that Ictinus, the architect of the Parthenôn, at Athens, composed the plan of the edifice; and that every thing the arts of Greece could afford, in the period of their greatest splendour, aided by the genius, the taste, and the profusion of their great patron, was lavished upon this building. The effect of its beauty and prodigious magnitude is described, as exciting a degree of astonishment, which could only be equaled by the awe its sanctity created. Its materials were of the white marble of Mount Pentelicus; and the most celebrated men, in the various arts necessary for its completion, were employed to give the highest perfection to the work. In this wonderful combination of talents, as the motto declares, PHIDIAS presided—ΠΑΝΤΑ δι διιπι και παντων επισκιπος ην αυτω ΦΕΙΔΙΑΣ—so that it was likely to present a monument, both as a whole, and in the detail of its minutest decorations, of whatever in sculpture or architecture the world had seen most perfect.

From this brief account of the erection of the temple, we are led to its overthrow, which was effected by the Goths at the close of the *fourth century;* and it is observed by Mr. Clarke, that, among all the ruins of Greece, there is not an example of any building on which barbaric rage has been vented with more studious schemes of destruction, than on the temple of Ceres at Eleusis. This utter demolition our author attributes to the mistaken zeal of Christians, in addition to the rage of the Goths: but, notwithstanding the devastations of both, enough remains to impress the mind with an idea of its immense magnitude and grandeur: the pavement, the capitals of several of the columns, shafts, subverted and broken; bases and pedes-

tals, all of the most exquisite workmanship, are still seen; and many a mutilated fragment at once attests the lamentable effects of superstition, and the unrivaled glory of the arts of Greece.

After an interval of thirteen centuries, during which these magnificent ruins were yielding a daily sacrifice to barbarians, they attracted the attention of our countryman Wheler, who, in his journey from Athens to Corinth, having visited Eleusis, particularly described its temple, and this bust of Ceres, which was discovered by him on the fifth of February, 1676. His words are these:—'Among the ruins of old walls, we found the remains of the goddess herself; *viz.* a part of her statue, from the head to below the waist, made of very white marble, of admirable work, and perhaps of no less a master than Praxiteles himself, as that was in her temple at Athens. It is a colossus, at least three times bigger than nature. She is girt about the waist; and two belts cross each other on her shoulders. Her breasts appear very natural, but her face is disfigured. Her hair falleth back upon her shoulders, and is tied together near her neck. Upon her head is a basket, carved on the outside with clusters of wheat-ears, bundles of poppies, roses, and vessels.' Of this bust, a representation is given, but so rudely drawn, as scarcely, notwithstanding it has the inscription—'SIMULACRI CERERIS ELEUSINIÆ FRAGMENTUM,' to be cognizable, were it not that the dimensions, together with the written description, place its identity beyond a doubt.

To the testimony of Wheler, in respect to this statue, that of his companion SPON is subjoined, whose engraving is much more accurate, whilst the description of both goddess and temple is almost one and the same. This is followed by that of POCOCKE, whose veracity, Mr. Clarke remarks, is proverbial. Journeying from Athens to the Isthmus of Corinth, and arriving at Eleusis (Sept. 4, 1739), he thus speaks of this temple and statue:—'At the north foot of the hill, on an advanced ground, there are many imperfect ruins, pieces of pillars, and entablatures; and *doubtless it is the spot of the temple of Ceres and Proserpine.*'—'At the temple of Ceres, I saw *the large bust or upper part of a statue*, supposed to have been designed for that goddess: it is so large, that it measured at the shoulders five feet and a half broad: there is a circular sort of ornament on the head, above two feet deep, the middle part of which is adorned with foliages of oak, as mentioned by travelers, but the face is much disfigured.'

Passing over the notices of a few foreigners, Mr. Clarke closes his vouchers with the evidence of Dr. CHANDLER, of Oxford, who, having mentioned that Wheler saw among the ruins (which he conjectures to have been those of the temples of *Diana Propylæa* and of *Neptune*) some large stones carved with wheat-ears and bundles of poppy, adds, 'that near is *a bust of a*

colossal statue, of excellent workmanship, maimed, and the face disfigured: the breadth at the shoulders, as measured by Pococke, five feet and a half; and the basket on the head above two feet deep. It probably represented PROSERPINE.' As for this last conjecture, no reason is alleged; so the wheat-ears and poppies on the stones, noticed by Wheler, being the appropriate symbols of Ceres, sufficiently ascertain to whom the temple itself had belonged; especially when we add the mention, by Wheler, that, 'on the brow of the hill, a little higher than the place where the bust itself was discovered, a large basis for a statue' was found by him and Spon, 'which they judged to belong to that of the goddess. There was written upon it only NOY ΝΙΓΡΕΙΝΟΣ ΙΕΡΟΚΗΡΥΞ—*Noumilius* Nigrinus Priest;* which perhaps was the name of him that erected the statue'—we rather suppose, this basis.—'But,' Wheler proceeds, 'that which is most remarkable about it is a small basso relievo, representing the procession of Ceres, used to be made by the Athenians, in memory of her going about the world in search of her daughter Proserpine, stolen by Pluto, after she had lighted her torches at Mount Ætna.

In the HYMN *to* CERES, lately found at Moscow by Matthei, and first published by *Ruhnken*, several particulars occur, which Mr. Clarke might have applied to his purpose. In the first place, the sites of the city of Eleusis and temple of Ceres agree with the different testimonies adduced, the goddess being described as *seated* in her temple, placed on *Eleusis' rocky steep:* v. 355.

απανευθε θυωδεος ενδοθι ΝΗΟΥ
ΗΣΤΑΙ, Ελευσινος ΚΡΑΝΑΟΝ πτολιεθρον εχουσα.

This temple, in which she is uniformly represented as *sitting,* ενθα ΚΑΘΕΖΟΜΕΝΗ—for such was the attitude of the statue—was, with her altar, ordered to be built, as Wheler mentions, 'on the *brow* of the hill;' Pococke, 'at the foot of the hill, *on an advanced ground;*' and Chandler, 'beneath the *brow* at the east end of the hill:' v. 296.

Αυταρ ὁ γ' εις αγορην καλεσας πολυπειρονα λαον,
Ηνωγ' ΗΥ ΚΟΜΩι ΔΗΜΗΤΕΡΙ πιονα ΝΗΟΝ
Ποιησαι, και ΒΩΜΟΝ επι ΠΡΟΥΧΟΝΤΙ ΚΟΛΩΝΩι.

Again, addressing the Eleusinians, the goddess thus proceeds: v. 268.

Ειμι δε ΔΗΜΗΤΗΡ τιμαοχος, ἠτε μεγιστον
Αθανατοις θνητοις τ' ονιαρ και χαρμα τετυκται.

* NOY, here considered by Wheler as an abbreviation of *Noumilius*, is evidently a contraction of ΝΕΩΚΟΡΟΥ, *Ædituus* sometimes expressed by ΝΕΟΚΟΥ and ΝΕΩ, as in *Gruter*, p. 1021, n. 9.—ΙΕΡΟΚΗΡΥΞ is not *priest*, but *sacred crier*, or *director of the solemnities.*

Αλλ' αγε, μοι ΝΗΟΝ τε μιγαι, και ΒΩΜΟΝ ὑπ' αυτῳ
Τευχοντων πας δημος ὑται πολιν, αιπυ τε τειχος,
Καλλιχορου ΚΑΘΥΠΕΡΘΕΝ, επι προυχοντι κολωνῳ.

Also, from the exquisite ornament on her head, she is perpetually styled ΚΑΛΛΙΣΤΕΦΑΝΟΣ ΔΗΜΗΤΗΡ — the *beautifully-crowned* Ceres, whilst the *tresses* that flowed over her shoulders, v. 279,—

— — ξανθαι δε ΚΟΜΑΙ ΚΑΤΕΝΗΝΟΘΕΝ ΩΜΟΥΣ,

appropriately distinguished her, as the goddess with *abundant hair:* v. 1.

Δημητρ' ΗΫΚΟΜΟΝ, σεμνην θεαν, αρχομ' ασιδην.

Nor should another epithet be overlooked in this *sacred image* of Ceres, applied by *Marcellus Sidetes*, who, complimenting Faustina the Younger with the title of the NEW Ceres, thus expresses himself, in respect to Regilla, on the dedication of her statue:—

————Θεαι δε μιν ουρανιωναι
Τιουσιν, Δηω τε νεη, Δηω τε παλαιη,
Τυπτι περ ἱερον ειδος ΕΫΖΩΝΟΙΟ γυναικος
Αγκειται.

See *Herodis Attici quæ supersunt*, &c. a *Raphaële Fiorillo*, p. 38.

These traits, to pass over others which might be easily adduced, determine at once both the temple and the statue.

From the resemblance, however, the latter has been supposed to bear to the Caryatides in the Pandrosium of the Acropolis at Athens, a conjecture is advanced in the *Worsley Museum*, vol. i. p. 95, to show that it represents a *canephora*. This opinion Mr. Clarke proceeds to confute, by briefly stating, in the first place, and evincing from proper authorities, that the uniform attitude of the canephoræ does not correspond with the appearance of the statue; for, as it was their office to carry on their heads the κανεῖον, or *basket*, so it was supported by them *manibus sublatis*, with uplifted hands. Secondly, the *canephoræ* and *cistophoræ* have been confounded; while, as the one bore the sacred basket, the others carried the *cista*, or chest — an action requiring such a disposition of the arms (which may be seen in numberless examples) as could never have been applied to this statue. Beside that, thirdly, the ornament on the head of the Ceres is neither a chest, nor basket, but the καλαθιον, or *turret*, appropriate to Isis, who was one with Ceres. Accordingly, this turret, or crown, is ornamented with the flower of the lotos, and other symbols of the Egyptian goddess.

To these observations be it added, that 'historians have offered no reason to believe that statues of the canephoræ adorned the mystic temple at Eleusis. The researches which have

taken place among its ruins afford additional proof against such an opinion. Not a single fragment of that nature has been discovered; and such statues, when annexed to buildings, were never single.'—It may indeed be affirmed, that, in this temple, *canephoræ* could have had no place, they being attendants, not on CERES, but PALLAS. Thus, *Ovid. Metam.* II. 702.

> 'Illa forte die castæ de more puellæ,
> Vertice supposito, festas in Palladis arces
> Pura coronatis portabant sacra canistris.'

Moreover, as it is evident from this, and the authorities in p. 13, that the canephoræ and cistophoræ were *virgins*, that protuberance of breasts, so conspicuous in the statue, must have been utterly incongruous to *them*. The same may be said of the *caryatides;* for the class of *matrons* so called, being always represented as parts of edifices, and crouching under burdens (*Vitruv.* I, 1.), bear no similarity to the bust in question; whilst the other caryatides, as Pliny, speaking of the works of Praxiteles, attests (lib. 36, 5.), were *virgins*, attendant on the Caryan Diana.

Independent of the above remarks, it should be noticed, that, upon the breast of the statue of Ceres, and, if we rightly recollect, on the point where the belts from her shoulders cross each other, is seen the head of Medusa, which, as well as the belts themselves, we will venture to affirm, were not worn by either canephoræ, cistophoræ, or caryatides—circumstances alone sufficient to settle the question. Of the head here mentioned, it is observable that the tongue is exposed, as on Parian medals, and other remains, accompanied with symbols appropriate to Ceres. In respect to the circumstance of *lolling out the tongue*, we will take the liberty of referring Mr. Clarke to the passage from the Scholiast on Nicander (Alexiph. 130), as also to v. 203 of the Hymn to Ceres, and to the Frogs of Aristophanes, v. 387 :—

> Δημητερ, ἁγνων οργιων
> Ανασσα, συμπαραστατει
> Και σωζε τον σαυτης χορον·
> Και μ' ασφαλως παντηυτερον
> ΠΑΙΣΑΙ τε και χορευσαι,
> ΚΑΙ ΠΟΛΛΑ ΜΕΝ ΕΓΛΟΙΑ Μ' ΕΙ-
> ΠΕΙΝ, πολλα δε σπουδαια, και,
> ΤΗΣ ΣΗΣ ΕΟΡΤΗΣ ΑΞΙΩΣ
> ΠΑΙΣΑΝΤΑ ΚΑΙ ΣΚΩΨΑΝΤΑ, νι-
> Κησαντα ταινιουσθαι.

Hence, and from a citation out of Diodorus (beginning of the fifth book), ἐθος δ' ἐστιν αυτοις εν ταυταις ταις ἡμεραις (those of the festival) αισχρολογειν κατα τας προς αλληλους ὁμιλιας, δια το την θεον επι τη της Κορης ἁρπαγη λυπουμενην ΓΕΛΑΣΑΙ δια ΤΗΝ ΑΙΣΧΡΟΛΟΓΙΑΝ — Mitscherlich has happily restored a remarkable passage in Clemens Alexandrinus, pædag. II, p. 196, ed. Potter. γελως ἐστιν

ἐυτος μυστηριωδης και ΕΞΥΒΡΙΖΩΝ, by substituting μυστηριωδης for μυστηριωδης; interpreting γελως μυστηριωδης *risus effusior*, et quidem, qualis in *mysteriis* consueverat, σκωπτικος, hinc bene additum, και εξυβριζων.

Having related the various attempts which had been made for the removal of the statue, and their failure—after which we might ask our author, in the words of Cicero, 'SIMULACRUM CERERIS TOLLERE AUDEBAS?'—the tract concludes with an account of the means by which it was at last accomplished.

'A short narrative of the means used by private individuals' (Messrs. CLARKE and CRIPS), 'unaided by diplomatic power or patronage, to procure for the university of which they are members this interesting monument of the arts and mythology of Greece, may not prove unwelcome.

'The difficulties to be encountered were not trivial. It was first necessary to purchase the statue from the waiwode, or governor of Athens, who alone had power to dispose of it. A firman was then to be obtained for its removal; the attendance of a Turkish officer to enforce the order; and a vessel capable of conveying it away. The old quay of Eleusis, consisting of immense blocks of marble, broken and disordered, required reparation. Across the chasms, where the stones were wanted, it was necessary to place pieces of timber, as temporary bridges, that the statue might be conveyed to the utmost extremity of the quay, where a sufficient depth of water would admit the approach of large boats.

'When all these preliminaries were adjusted, which required equal promptness and secrecy, amidst the opposition to be expected from a herd of idle and mercenary Greeks, acting as consuls to different nations; in what manner could a foreigner, without any mechanical aid, expect to raise a mass of that magnitude, and convey it over rocks and ruins from its station at Eleusis to the sea?

'Athens afforded a rope of twisted herbs, and a few large nails. A small saw about six inches in length, an axe, and some long poles, were found at Eleusis. The stoutest of these poles were cut, and pieces nailed in a triangular form, having transverse beams at the vertex and base. Weak as this machine was, it acquired considerable strength by the weight of the statue when placed on the transverse beams. With the remainder of the poles were made rollers, over which the machine might move. The rope was then made fast to each extremity of the transverse beams at the vertex. Simple as this contrivance was, it succeeded, when perhaps more complicate machinery might have failed; and a mass of marble, weighing near two tons, was moved over the brow of the hill, or Acropolis of Eleusis, and from thence to the sea in about nine hours.

'An hundred peasants were collected from the village and neighbourhood of Eleusis, and near fifty boys. The peasants were ranged forty on each side to work at the ropes, the rest being employed with levers to raise the machine when rocks or large stones opposed its progress. The boys who were not strong enough to work at the ropes and levers, were employed in taking up the rollers as fast as the machine left them, and in placing them again in front.

'But the superstition of the inhabitants of Eleusis, respecting an idol, which they all regarded as the protectress of their fields,

was not the least obstacle to be overcome. On the evening preceding the removal of the statue, an accident happened which had nearly put an end to the undertaking. While the inhabitants were conversing with the Turkish officer who brought the firman from the waiwode of Athens, an ox, loosed from its yoke, came and placed itself before the statue; and after butting with its horns for some time against the marble, ran off with considerable speed bellowing into the plain of Eleusis. Instantly a general murmur prevailed, and several women joining in the clamour, it was with difficulty any proposal could be made. "They had been always," they said "famous for their corn; and the fertility of the land would cease when the statue was removed." These are exactly the words of Cicero with respect to the Sicilians, when Verres removed the statue of Ceres: "Quod, Cerere violatâ, omnes cultus fructusque Cereris in his locis interiisse arbitrantur."

'At length however these scruples were removed; and on the following morning, November the 22d, 1801, the priest of Eleusis, arrayed in his vestments as for high mass, descended into the hollow in which the statue was partially buried, to strike the first blow with a pickaxe for the removal of the rubbish, that the people might be convinced no calamity would befal the labourers. At mid-day the statue had reached the summit of the hill above Eleusis; and as the sun was setting, by the additional assistance of the crew of a Casiot vessel, hired to convey it away, was placed at the extremity of the ancient quay of the port.

'The next day, November 23, boats were placed parallel to each other from the quay to the vessel; and planks being laid over them, a kind of stage was formed, on which the crew could more easily work the blocks of the ship. These being all brought to act at once upon the marble, it was raised and let into the hold. The vessel then sailed to Smyrna, where the statue was again moved into the Princessa merchantman, capt. Lee. In her passage home this vessel was wrecked and lost near Beachy Head; but the statue was recovered, and has finally reached its destination.' P. 20.

It will be proper to observe, that the profit arising from the sale of this pamphlet is liberally applied to a charitable purpose.

It has been given us to understand that Mr. CLARKE's Testimonies to prove the great sarcophagus brought from Alexandria, and now in the British Museum, was the one which contained the body of Alexander the Great, will soon make their appearance; and we trust that his Travels at large will be no longer with-held from the public, than the time requisite for preparing them will admit. How interesting a detailed account of them must be, the annexed list of MSS., and other treasures, collected by this enterprising and intelligent scholar, will show.

From PATMOS.

1. PLATO, most beautifully written on vellum, in folio: the scholia in minute capitals. The colophon at the end proves it to have been copied by JOHN, the calligraph for ARETHAS, dea-

con of Patræ, from whom he received for it thirteen Byzantine nummi, in the fourteenth year of the Indiction, and the 6404th of the World (A. C. 896), in the reign of Leo, son of BASILIUS.—This MS, which, it may be pertinent to observe, *professor* PORSON styles a *monument of literature*, was, on its arrival in England, supposed to be the oldest Greek MS extant with a date: that noticed by *Montfaucon*, in his Palæography, p. 42, as *six years prior*, and another by *Dorville* on Chariton, p. 49, 50, written *one year* before it, having ceased to appear. The latter, however, from the pen of the same transcriber, has been since found, and, with the rest of M. DORVILLE's MSS, is now in the possession of Dr. RAINE of the Charter-house, and of Mr. BANKS.

Professor PORSON, who diligently occupied himself in copying the scholia on Plato, has discovered among them citations from Greek dramatic writers, and other poets whose works had been lost. It is hoped the world will be allowed to profit from these precious acquisitions.

2. Lexicon of St. CYRIL, of Alexandria.

3. Greek Poetry, accompanied by ancient Greek musical notes.

4. Ditto, ditto.

5. The works of GREGORY Nazianzene.

From NAXOS.

Copies of the Gospels, in capitals, of very ancient date.

From MOUNT ATHOS.

1. The Orations of DEMOSTHENES.

2. The works of ten Athenian orators, some of them not hitherto known.

From CONSTANTINOPLE.

1. The works of DIONYSIUS the Areopagite, with a curious and learned Commentary, written on vellum, in folio.

2. Complete copy of the Gospels, written in the eighth century.

3. }
4. } Various copies of the Gospels, and of the Epistles, and
5. } Acts of the Apostles, of different dates.
6. }

7. The works of PHILIP the Hermit.

8. The Dialogues of THEODORE the Syracusan.

9. A work on the Greek Grammar.

10. }
11. } The writings of commentators on the Gospels; and
12. } the works of the earliest fathers of the church.

13. Very ancient copy of the Evangelistarium of the Greek church.

14. Ditto, ditto.

15. A work of PHILES, on animals.

To the above manuscripts, in the *Greek language*, should be added, in *Hebrew*, the Bible of the *Karæan Jews*—in *Coptic*, the *Gospels*—in *Arabic*, many volumes of *history*, *poetry*, &c.—in *Abyssinian*, or *Æthiopic*, the *Gospels*, &c.—and, in *Persian*, some unpublished works of SADI, and other writers.

The rest of the collections consist of—

1. *Antique monuments* from SAïs in Egypt, the ruins of which city were first discovered by Messrs. CLARKE and CRIPS: —*various other antiquities* from *Upper Egypt*.

2. MEDALS and VASES from all parts of *Greece*.

3. Sculpture and inscriptions from the *Cimmerian Bosporus*, the *Crimea*, the shores of the *Euxine*, the Plain of *Troy*, the *Greek islands*, and the *Grecian continent*.

4. MINERALS from all the countries passed through, between the 69th and 29th degrees of north latitude, including many new substances.

5. PLANTS, SEEDS, &c., from the same regions: these include several new species, and a new genus. Also the *Herbarium* of *professor* PALLAS, which comprises all his botanical discoveries in *Siberia*; and of Dr. *Noezen*, of *Sweden*, abounding in *arctic plants*.

6. ORIGINAL MAPS and CHARTS not yet published. Among these are the GREAT CHART of *Islands* and *Seas* between *Kamtschatka* and *America*, the result of *Billings's voyage*—the *Map* of the *Countries* between the *Black and Caspian Seas*, on a very large scale—the *Crimea*—*Charts* of the *Russian ports*—and a Map of the *Plain of* TROY, now engraving by ARROWSMITH.

7. MODELS, IMPLEMENTS of HUSBANDRY, *customs* of different nations, ANIMALS, INSECTS, &c.

8. A *large collection of* DRAWINGS *from nature*, for the purpose of illustrating the account of the JOURNEY.

MONTHLY CATALOGUE.

POLITICS, &c.

ART. 15.—*Official Papers, relative to the Preliminaries of London and the Treaty of Amiens. Published at Paris by Authority of the French Government.* 8vo. 3*s.* 6*d.* *sewed.* Debrett. 1803.

THIS publication contains the evidence offered to Europe and the world at large, in opposition to the Official Documents presented by the English ministry to parliament, and since published in a distinct pamphlet, noticed in the present volume, page 98. Between these pamphlets there is one striking difference in the form in which

they are presented, which cannot readily escape the observation of the public; and that is, that, while the English statement is sent out without a single word of comment, and submits to the free and unbiassed judgement of the reader the series of papers of which it consists, the French account is accompanied with a partial and perpetual explanation of the events referred to in the documents it produces. To give it its due, it is drawn up with no small degree of art and dexterity; and the French government, well knowing that the most impolitic and unpopular part of the British correspondence was that which occurred in the beginning of 1800 — the period in which Bonaparte personally addressed the king, and received in answer lord Grenville's two very irritable notes relative to the *result of experience* and the *evidence of facts*—has carried this official communication as far back as to this very period, and opened it with an account of the correspondence which at that time took place. But what, we inquire, has the conduct of lord Grenville to do with that of lord Hawkesbury? what the negotiation of 1803, subsequent to the treaty of Amiens—which introduced an æra and mutual relation of politics completely new and detached—with the negotiation of 1800, being more than two years anterior to such treaty, and entered into at a time of animosity and war instead of a time of peace and conciliation? The French government might as well have stepped back to the convention at Pilnitz, or even the treaty of Westphalia. The motive, however, is obvious; and we trust that it sufficiently betrays the weakness of the French cause in the dispute and period to which the papers really relate.

The documents which immediately follow are, nevertheless, of considerable importance, as they give the history—which has never been given by our own cabinet—of the negotiation upon which the treaty of Amiens itself was founded, together with the various *projets* and *contre-projets* which led to that event. In the course of this negotiation, Malta appears to have been the point of greatest controversy, from its commencement: the inexplicit mode in which the question concerning it was at length adjusted by the definitive treaty, proves obviously that it was thus inexplicitly adjusted, because the plenipotentiaries were weary of the dispute, and could devise no scheme by which the positive views of the opposite cabinets could be equally realised. With respect to the subject of Malta, exclusively considered, we have no hesitation in stating, that, in the course of the negotiation which afterwards ensued between lord Whitworth and M. Talleyrand, the advantage appears to have been in favour of France; and that, had no collateral point of dispute arisen, the British cabinet would not have been justified in retaining possession of the island. But, with the full prospect of a war before them, produced by the inordinate ambition and irritating conduct of the chief magistrate of the republic, to have relinquished Malta (and especially while he himself, in equal opposition to the terms of the treaty, retained possession of Holland), would have discovered, not merely impolicy, but political madness; and the proof of a conciliating spirit was perhaps carried too far, even in the surrender of the Cape of Good Hope. Much, however, of the real cause of the war may, in our judgement, be ascribed to the conduct of that party at home who objected to the peace of Amiens, and would have objected to every kind of peace, but such a one as might have been manufactured by themselves. It was the daily and unremitting object of that party to set the British minister and the chief magistrate of

France at an irreconcilable variance with each other: they irritated the one, by abusing the peace he had concluded; and the other, by urging against him a ceaseless torrent of the most acrimonious invective; and they at length succeeded in rendering the British cabinet dissatisfied with the terms they had obtained, and in compelling the first consul to apply for some means of moderating, or altogether preventing, the perpetual abuse of his character. From this moment, it was easy to foresee what has since taken place—that the war would be renewed, and that the two nations would be actuated by a double degree of animosity against each other. The remainder of the pamphlet is occupied by a few only of the communications which passed between the court of St. James's and St. Cloud. The whole of these, though constituting the sole basis of the present hostilities, constitute but little more than an appendix to the preceding; and not one of the papers most important in the eye of Great Britain is inserted. The report of Sebastiani is totally suppressed: we meet with no remonstrance upon the retention of Holland: we only read incidentally of any objection to the freedom of the British press: we learn nothing whatever concerning the existence of commercial agents, nor even of the inhospitality exercised towards British vessels, when driven by stress of weather into French ports. A more artful and garbled account of an important transaction we have hitherto never witnessed, and trust we shall not speedily witness again.

ART. 16.—*A short View of the Causes which led to, and justified, the War with France.* 8vo. 1s. Hatchard. 1802.

In this *short view*, we have an able, a temperate, and, for the most part, an impartial examination of the subject to which the pamphlet pretends. Our author examines the grounds of complaint, as contained in the official documents of our own cabinet, which he arranges under the following heads:—

'1st. The numerous and continued acts of indignity and insult, that have been heaped on this country by the government of France, since the treaty of Amiens.

'2d. The acts of aggrandisement, that have been perpetrated by France, in direct violation of that treaty.

'3d. The impracticability of fulfilling that part of the treaty of Amiens, relating to the future organization of Malta, and the justifiable refusal of attempting it, from the intervention of circumstances, that have taken place since that period.' P. 7.

Of these three justificatory propositions, our defence must principally be derived from the first; although we admit, that, notwithstanding the isolated and disjunctive nature of the treaty of Amiens with regard to the general state of the European continent, we were not precluded from paying an attention to its concerns, and participating in its interests; and that, although the communications anterior to the preliminary and definitive treaties, and the respective articles in these treaties themselves, which relate to Malta, are, when literally interpreted, rather in favour of our antagonist than of ourselves, yet that the whole of these communications are indefinite, and the contested article in either treaty so loosely worded, that it is almost impossible a dispute should not arise upon their execution. The

first proposition alone, however, will furnish us with a sufficient vindication of the belligerent conduct we have pursued, and will rather tempt us to be surprised at the palliative forbearance of the British cabinet, than indignant at its recommencement of hostilities. We have no doubt that the rupture was accelerated by the conduct of the new opposition in parliament: but the unreasonable ambition of Bonaparte, which forbade him to endure a rival, and his unbounded vanity, which induced him to conceive that England alone was an incompetent match for his power, gigantic as it is, would have rendered every peace insecure, till he had learnt, from the severe test of experience, to think less highly of himself, and with more respect of his opponent.

We fully agree with the writer, that a simple relation of the facts on which our complaints are founded, is

'— sufficiently convincing to a reasonable mind; and the reflections that must immediately result from them are so very obvious, that it is superfluous, and almost a waste of time to attempt at repeating them. They require no comment, but speak aloud to the world, and announce in the most satisfactory manner, the avowed hostility and aggression of France towards this country; an aggression consisting of acts so various and insulting, as to join together all opinions in the unanimous persuasion of the necessity of again having recourse to war. They who think that offences against the national honor, are the most justifiable causes for the renewal of hostilities; they who look with a jealous eye on the aggrandizement of France, and the preservation of the balance of power, or they who feel a just and animated indignation at repeated infringements of treaties, and multiplied instances of bad faith, must all, though they travel by a different road, at last meet at the same point; for there is not any handle for quarrel, any pretext that was made use of by one nation against another, that has not been had recourse to by France, in her hostile intentions against this country.

'If this unanimity, this knitting together the hearts of the whole people as the heart of one man, is a subject of comfortable reflection and exultation to us, let us not refuse our tribute of gratitude, to the politic and prudent system of forbearance, on the part of the present ministry, which has been the means of procuring it for us. For to this system of forbearance, are we indebted for the full and entire disclosure (a disclosure so satisfactory, as inevitably to convince the most doubtful and sceptical mind) of the ambitious views and projects of the first consul; views which, if not stopped in their present career, may be ultimately encreased beyond the powers of remedy, and which are not merely inimical to our welfare and existence, but to the welfare and existence of all the nations of Europe.' P. 46.

ART. 17.—*Reflections on the Causes of the War, and on the Conduct of His Majesty's Ministers.* 8vo. 2*s.* 6*d.* Hatchard. 1803.

The writer of these reflections steps beyond the boundary prescribed to himself by the author of the foregoing pamphlet; and, after having endeavoured to vindicate his majesty's ministers throughout the whole course of the negotiation that preceded the war, delivers

his ideas of the extent and consequences of the present hostilities, offers his opinion of the system that ought to be pursued to render them glorious and successful, and closes with a panegyric upon the powers of the present chancellor of the exchequer, and his perfect adequacy to the important station in which he is placed.

'With respect to Hanover,' (says our political essayist, with a short insight into the events of futurity) 'there can be no doubt of its safety, if the Germanic empire itself be safe; nor can it be invaded without involving the emperor of Germany, as the head of the empire, in its protection. If events should turn out contrary to this opinion, we may then be assured, that the new constitution of Germany is a mere piece of blurred parchment, and a preconcerted fraud.' P. 62.

'Should Hanover fall, Portugal will be the next victim, and the boasted plan of excluding us from Europe will be attempted. If it be tamely permitted by the powers who have the means of preventing it, although a total exclusion be impossible, our commerce must take another direction; and if we are shut out from the continent, we must shut him out from the rest of the world. The means, are assuredly in our power, and we are persuaded the genius of our ministers will employ them. The same bold spirit of commercial adventure which transported our merchants to the remotest regions in search of new sources of industry; the same patient and steady habits of enterprise, which have wafted us to glory and prosperity, will explore mines hitherto unknown to the ancient or modern world.

'This consideration on which we have already ventured an opinion, is as worthy of philosophical thought as of mercantile calculation. What may be the consequences of our exclusion from the continent, forms of itself the subject of a discussion, which, when realised, we shall not fail to submit to our countrymen. At present, it will suffice to observe, that if Great Britain lost an empire in North America, she may gain a more productive one in the south. The French invasion of Portugal, the inevitable war which impends between us and Spain, will lay the whole continent of South America at our discretion. In furnishing to the wants of the people of those regions, and indeed, in providing for the necessities of the colonists, whose communications with their metropolitan countries must be cut off by the superiority of our naval force, we are very doubtful indeed, whether the demand for our manufactures will not greatly exceed the balance of trade with all Europe.

'Such an event would change the face of the world; and while it would give animation and new life to our commerce, it would provide ample means for resisting or annoying our natural enemy to the end of time. France, commanding or influencing the greater part of Europe, yet impoverished, paralyzed in commercial undertakings, knowing not how to begin, or whither to direct her views, will rot upon her estate, like the proprietor of the ground, which he wants the skill and industry to cultivate. Britain, on the contrary, will circumnavigate the globe in triumph, carrying the blessings of civilization and arts among semi-civilised, or unfrequented nations, and return laden

with the treasures of their native productions. The one will tyrannize in the midst of ruins, over polished communities, whom she has treated as barbarians; the other will induct the timid Indian into a sense of the enjoyments of civility, and make him the instrument of his own happiness, as well as the tributary of an empire, capable of dispensing liberty and happiness over every people worthy to possess them.' P. 88.

ART. 18.—*A few cursory Remarks upon the State of Parties, during the Administration of the Right Honourable Henry Addington. By a near Observer.* 8vo. 2s. 6d. Hatchard. 1803.

This remarker may well pride himself upon his impartiality; for, various as are the parties at present in existence, he seems so accurately to divide his allotments of praise and blame to all of them, that it is difficult to decide which, in his own estimation, is best entitled to the thanks or confidence of the people.

'You must have observed, Mr. Addington,' (says he) 'in the conduct of some of your predecessors, and you have doubtless remembered to your own advantage, how unprofitable and absurd it is to add insolence to power, and to think it a part of greatness to be hated. I understand that you are happier in your disposition, more manly in your friendships, more generous in your sentiments, and that to the frankness and probity of your public character, you join the virtues and the manners of elegant and domestic life.—May these good qualities of your nature, sir, be neither corrupted by honours and success, nor soured by disappointment and ingratitude!

'The following reflexions are intended with much good-will to you and your administration; but I am far from promising that every page shall sooth your vanity, or promote your wishes, or coincide with your opinions. I cannot be your friend and your flatterer too.' P. iv.

After viewing the matter, however, in every possible light, *Mr. Addington* seems to come off better than we had expected; for our author thus concludes, and we unite with him in opinion:—

'I confess I think his majesty's ministers have a right to all our support, co-operation, and assistance. I should not dare, for light and trivial motives, at this terrible hour, to encrease their difficulties, diminish their credit, or shake the confidence of the people; I do not know that one ought to bring forward serious causes of complaint (if they existed) at a time when unanimity alone can preserve the empire. I consider them abstractedly as the king's servants: faithful, able, vigorous, and fortunate, they have hitherto proved, and, I trust, will continue. But at all events, under them we must fight for all that is dear and sacred to humanity. By their side we shall conquer or lie down. I think there is no other party for us to take, and I am sure there is no duty more imperious and binding.' P. 80.

ART. 19.—*Regulations of parochial Police; combined with the military and naval Armaments to produce the Energy and Security of the whole Nation. The fourth Edition, corrected and enlarged.* 8vo. 1s. 6d. Hatchard. 1803.

The regulations here proposed relate to the *internal* security of the

country, and especially of our larger and more populous towns and cities, in case an invasion should actually occur—a security which the author thinks would be much endangered by a sudden discharge from employment of large bodies of clerks and overgrown apprentices, and larger still of idle and ungrateful servants, especially—

'those numerous bands of robust and active youth who are the mere retainers of dissipated ostentation and luxury, and who, in the dispositions and habits they cultivate, are the prepared instruments of violence in unexpected or sudden calamities;' P. 36.

but most of all from the one hundred thousand offenders, as they are calculated by Mr. Colquhoun, who derive a daily sustenance from the complicated stratagems of depredation and thievery, being suddenly set afloat on the metropolis. The regulations proposed are entitled to attention, and founded on the principle of establishing a more vigorous parochial police than at present exists in the nation. The necessity, however, of adopting the plan proposed, is nearly superceded by the bill for arming the nation at large, and the immense bodies of volunteers who have in consequence pressed forward to offer their services, of which the greater part are limited to internal defence by the very terms of their association. We agree with the writer in the following observations:—

'With all the defects that have been unjustly, and with those that may have been justly, imputed, to the political constitution of Britain, as they may be to all the institutions of man; with all the errors, real and pretended, which have been attributed to its government, and ministers; that constitution now stands alone in Europe, as the depositary of practical principles, institutions, and customs, which are the real elements of political and civil liberty.

'If France, on the cessation of its anarchy, could have cordially agreed on a general amnesty, and assimilated itself with Britain in the best of its civil regulations, and in all its economical and commercial pursuits; the evils of the French revolution might have been atoned for, and compensated, by a general state of prosperity in Europe, of which the world has never afforded an example.

'The French revolution had removed prejudices and developed truths, which might have ensured these consequences. But unfortunately, all power devolved in France on military men, who would influence communities, as they command armies, wholly by the sword.' P. 3.

ART. 20. — *Letter to the Right Hon. Lord Pelham, on the State of Mendicity in the Metropolis. By Matthew Martin, Esq.* 8vo. 1*s.* 6*d.* Hatchard.

To the unwearied industry of Mr. Martin, in the benevolent office to which he has devoted himself for the last six years, we are no strangers; and, however we may object to his system in several trivial points, we think few persons are better entitled to the gratitude of the public, and especially of the metropolis, than himself. The multitudes of beggars that infest almost every street of this vast city, and the plaintive importunity of their entreaties, cannot but afflict the heart of every

feeling spectator: to give to all, is, in most cases, impossible; yet not to give, is to draw down abuse from the more insolent, and to oppose some of the best instincts of nature in cases of the more modest. The amount of these wretched beings, which have been calculated at three thousand by Mr. Colquhoun, is averaged by the present writer (who, in his account, includes their children) at not less than *fifteen thousand two hundred and eighty-eight*; for almost the whole of whom, notwithstanding the enormity of our poor-rates, the country has, in few instances, provided any relief whatever.

These were the views which long operated upon the mind of Mr. Martin, and induced him, about the year 1796, to make a systematic inquiry into their relative situations, and means of assistance: he instituted an office for this express purpose, applied to government for assistance, and was twice supplied with a grant of £.500. In the letter before us, he gives the result of his inquiries, so far as relates to two thousand cases, and proposes his plan for relieving the town from this painful and mortifying evil.

'From the result of the enquiry' (observes he) 'it appears, that there are two principal classes of beggars; parochial, and non-parochial; each class being subject to some variations; *viz.*

'CLASS I. PAROCHIAL.

'a. Of home parishes; within the metropolis, and ten miles round.

'b. Of distant parishes; more than ten miles from the metropolis.

'CLASS II. NON-PAROCHIAL.

'a. Irish.

'b. Scotch.

'c. Foreign, &c.

'The column of home parishes in the summary of the 2000 cases, states 750; that of distant parishes 336; to which two descriptions, the amount of the column of uncertain parishes, being 140, may with sufficient accuracy, be severally and proportionately added; and thus the former description would be advanced to about 847
and the latter to about 379

Total parochial about 1226

and the numbers of Irish, Scotch, and foreign, taken as per summary, with the addition of 3096 for the children connected with the 2000 cases, and classed accordingly, and respect being had in such classification to the 140 cases of uncertain parishes, would amount to nearly,

'CLASS I. PAROCHIAL INDIVIDUALS.

'a. Of home parishes; inclusive of about 1384 children, about 2231

'b. Of distant parishes; inclusive of about 489 children, about 868

'Total parochial children, about . . . 1873——

'Total parochial individuals, about 3099

'Total parochial children, about . . . 1873——
'Total parochial individuals, about 3099

'CLASS II. NON-PAROCHIAL INDIVIDUALS.

'a. Irish; inclusive of about 1091 children, about . . 1770
'b. Scotch; . ditto . . 103 . ditto 168
'c. Foreign; . ditto . . 29 . ditto 59

'Total non-parochial children, about . 1223——
'Total non-parochial individuals, about . . . 1997

'Total children on the 2000 cases, about 3096 ——
'Total individuals on the 2000 cases, about . . 5096

P. 7.

This number, however, merely relates to the cases which fell beneath his own cognisance; for, as to the total aggregate of beggars in the metropolis, he has calculated them, as we have already mentioned, at upwards of fifteen thousand. We have not at present time to pay all the attention it deserves to the plan of relief which follows this statement; but we will insert it in as short an extract as possible, for the perusal and meditation of our readers.

'In suggesting a plan for remedy, I shall not find it necessary to propose the erection of extensive and costly buildings, or other heavy charges of establishment, it being my aim instead of augmenting, considerably to reduce the expenses of the public, on account of the poor. But in a case of such magnitude, composed of an infinite number of lesser evils, such a regular establishment would be peculiarly necessary, as should be competent to investigate and redress the grievance.

'I would therefore propose,

'That a board be instituted, to consist of a president, and four other commissioners, for the declared purpose of prosecuting a general enquiry into the cases of beggars in the metropolis, and directing suitable relief.

'That the metropolis be divided into five districts, *viz.* into

'1. South-west or Westminster district (red); bounded to the northward by Oxford-street, Broad St. Giles' and Holborne to the city; eastward by the city; and south-eastward by the Thames.

'2. North-west or Mary-le-bone district (orange); extending northward from Oxford-street, Broad St. Giles', Holborne, and the city; and bounded to the eastward by the City-road to the entrance of the city at Finsbury-place, Moorfields.

'3. North-east or Whitechapel district (yellow); extending to the eastward from the City-road, and behind the city to the Thames.

'4. Middle or city district (green); the city itself.

'5. Southern or Surry district (purple); all on the other side the Thames; as the Borough, Lambeth, &c.

'That each commissioner have the charge of a separate district.

'That provision be made by law to direct relief to be given to parochial paupers in the parish of their residence, to be refunded by the parish of their legal settlement, the cause of such residence being known and approved by the magistrate.

'That a fund be raised by contribution from the parishes of the metropolis; in a fixed proportion of the average amount of the expense for casual poor, taken for ten years back; that the parishes be in consequence of such contributions exempted from the charge of casual poor, and the whole expense for their relief, and for the support of the institution be borne by the fund.

'That an account be annually submitted to parliament, of the progress of the business, and its expenditure.' P. 20.

LOYALTY AND PATRIOTISM.

We feel ourselves particularly called upon, in the present state of the nation, to pay a pointed attention to publications of this description: we are convinced of their utility, and fervently hope they will be persevered in. From the multitudes which are almost daily issuing from the press, it will scarcely be in our power to notice, or even to become acquainted with, every one: we shall, nevertheless, endeavour to make our register as complete as possible; and if, in the prosecution of our intention, we relax a little from our accustomed impartiality of political feeling or critical investigation of style, we are sure we shall be excused in the eye of every true Englishman, and, we trust, of every enlightened foreigner.

ART. 21.—*Strike or Die!—Alfred's first Letter to the good People of England.* 12*mo.* 3*d.* Hatchard. 1803.

There certainly did not appear, at the commencement of the present war, all that promptitude to a general volunteer service, which the safety of the country seemed to require; and on this appearance alone, can be justified the *expediency* of a bill of coercion. It is now certain, however, that the torpidity which was at first manifested proceeded rather from a general insensibility of the real danger that surrounded us, than from the smallest disinclination to engage in the service of the country; and so widely and universally has the spirit of volunteering been of late diffused, that we rejoice to find the ministry themselves are at length persuaded there will be no occasion for enforcing the compulsory act, and have armed themselves with a power of suspending it at discretion. Much of the patriotic animation which now stimulates the bosom of every one, arises from the fortunate removal of this insensibility; and the pamphlet before us is entitled to no small share of praise in this respect. The author takes it for granted that Bonaparte will attempt an invasion; and offers, to the candid consideration of the people at large, a collection of facts of 'cruelties, vexations, and other enormities, which have been brought upon different nations that have submitted to the French arms.'

'After you have read this account' (says the writer), 'put your hands to your hearts, and ask, what would be the lot of Britain, if it were over-run by the soldiers of Bonaparte? *We* should suffer more than all those countries put together; for the opinion which the French have of our wealth, and of those wholesome institutions which have enabled us to defeat and defy their power, would break out into the most rancorous persecution, were they ever to become masters of our country. Learn, then, by the misfortunes of other men, how dreadful a thing it is to lose the independence of one's country. In the following pages, read what is the fate of all people whom the French have conquered. What you will find stated therein, will serve as an outline of the abominable cruelties which you will have to undergo, if every man does not fly to arms in order to protect the altars of his God, the person of his good king, the laws which his forefathers bequeathed to him, and the unblemished innocence of his wife and daughters. If any man living is so foolish or so deluded as to imagine that crouching or submission will appease the malice and bloody wrath of Bonaparte, the following short detail of the fall of other nations will remove his doubts. If those who never offended, have been punished without mercy, what must that people expect, who, for more than ten years have been cursed and threatened with extermination by the French government, for all those miseries which themselves have brought upon their wretched slaves? Ever since that bloody ruffian Bonaparte became known to mankind from the calamities he brought upon them, England has been unceasingly the nation against which he has muttered curses and denounced vengeance. He declared that he plundered Italy to obtain the means of invading England. As he passed through Swisserland, he swore that in less than six months he would overthrow our liberties and independence. Upon the burning sands of Syria, the gallant sir Sidney Smith writes, that as each ball fell near Bonaparte, during the siege of Acre, he muttered a thousand curses against England and its people. Since his return to France, he has repeatedly pronounced his hatred against us. After he had robbed the Swiss people of their freedom, he forbade them from having any connection with England. This was in time of peace. If animosity like this breaks out in time of peace, what are we to look to in a state of war? The enmity which the people of one country bear to another, is excusable on national grounds; but when it becomes personal and enters deeply into the soul, as is the case with Bonaparte; when it arises from the consciousness that his frauds and villanies have been openly exposed by the English people, and his views thwarted by them, we cannot be surprised if the matchless murderer of Jaffa should wish to put to the torture and afterwards massacre all the men, women, and children, of a country that exposes his perfidious ambition, and bids defiance to his vindictive rage.' P. 3.

The instances are, in general, well selected, though we think, in some cases, they might have been urged with more weight and dexterity. Thus, our author pertinently alludes to the sanguinary decree of the National Convention of May 30, 1794, commanding no quarter to be given to English or Hanoverian troops: but, had he contrasted this barbarous decision of the Convention with the humane and magnanimous resolution of the duke of York upon the occasion, not to imitate such a conduct, but to give quarter to the enemy as before, he

would have doubled the force of his illustration. We trust that this, though the *first*, will not be the *last* of Alfred's Letters.

ART. 22.—*The Crisis of Britain, a Poem, addressed to the Right Hon. William Pitt, on the threatened Invasion of these Kingdoms by the French* in *A. D.* 1798, *and now re-published with a View to rouse the Indignation of a great and insulted People.* 4*to.* 2*s.* 6*d.* White. 1803.

This poem is well known to be the production of Mr. Maurice; and the bold and energetic diction with which it is composed is highly worthy of the dithyrambic Muse. It is now re-published with a few variations, adapting it to the chronology of the day. The compliments paid to Mr. Pitt are, notwithstanding, a little antiquated, and out of fashion. On this account, we would much rather have met Mr. Maurice on new ground altogether; the times are pregnant with matter, and he himself is not deficient in either taste or imagination.

ART. 23.—*Ode to the Country Gentlemen of England: re-printed from the Works of Akenside; and accompanied with a Preface and Notes.* 8*vo.* 6*d.* Hatchard. 1803.

'The eagerness with which certain short publications, calculated for the lower orders of the people, have lately been bought up, proves that military thoughts are rising in that quarter. But no particular call has as yet been addressed to those, whose birth and possessions make it at once their privilege and their duty, to direct the spirit of the people, and to exalt it by their own. On this account, the following "Ode to the Country Gentlemen of England" is reprinted from the works of Akenside.—And it fortunately happens, that the present moment is far more favourable to the reception of the sentiments it contains, than even that of its original appearance. At that period, in addition to other discouragements, it had to struggle with the opinions of a part of the administration itself. The councils of the sovereign were at that time not without some who entertained a jealousy of the advice here offered, and who disapproved of any proposal for a general arming of the people. Very different is the case at present:—the administration has been foremost in planning and promoting this method of defending the country—the legislature has entered with all zeal into their views; and both together have concurred in recommending and adapting the measure to the acceptance of the people at large.' P. 3.

The complaint contained in this paragraph is entitled to notice: and, with so many able and spirited poets as England has yet to boast of, it is truly surprising that the *classic* Muse has so seldom been applied to for her powerful and patriotic contributions; and that, for want of original compositions, we should be compelled to have recourse to new editions of poems become or becoming obsolete. We have already touched upon this subject in our last article; and we trust, from the ode noticed in the ensuing, that we shall have no more occasion to recur to it.

The present editor of Akenside's spirited and patriotic Ode to the Country Gentlemen is much entitled to the thanks of his country:

the merit of the piece, as an original composition, has been long known and universally admitted; and, of its peculiar adaptation to the present times, our readers may form some judgement from the following stanzas.

'But what hath force or war to do with thee?
Girt by the azure tide and thron'd sublime
Amid thy floating bulwarks, thou canst see,
With scorn, the fury of each hostile clime
Dash'd ere it reach thee. Sacred from the foe
Are thy fair fields. Athwart thy guardian prow
No bold invader's foot shall tempt the strand—
Yet say, my country, will the waves and wind
Obey thee? Hast thou all thy hopes resign'd
To the sky's fickle faith? the pilot's wavering hand?' P. 13.

'But if thy sons be worthy of their name,
If liberal laws with liberal hearts they prize,
Let them from conquest, and from servile shame
In war's glad school their own protectors rise.
Ye chiefly, heirs of Albion's cultur'd plains,
Ye leaders of her bold and faithful swains,
Now not unequal to your birth be found:
The public voice bids arm your rural state,
Paternal hamlets for your ensigns wait,
And grange and fold prepare to pour their youth around.' P. 14.

'O shame to human life, to human laws!
The loose adventurer, hireling of a day,
Who his fell sword without affection draws,
Whose God, whose country, is a tyrant's pay,
This man the lessons of the field can learn;
Can every palm, which decks a warrior, earn,
And every pledge of conquest: while in vain,
To guard your altars, your paternal lands,
Are social arms held out to your free hands:
Too arduous is the lore; too irksome were the pain.' P. 15.

ART. 24.—*The Triumph of Britain, an Ode. By John Mason Good, Esq.* Asperne. 1803.

In a vein of poetry considerably superior to that of his compeers, Mr. Good hastens to lend his aid to the common cause of patriotism; and incites the nation to military ardour and activity, by a review of the glorious achievements of our ancestors. It is thus the poem opens—

'What! shall the foe, through every age
Our sires, indignant, have chastised,
Again resume their idiot rage,
And Britain's wrath be still despised?
Has Cressy's field been fought in vain?
In vain has Agincourt been won?
Proud John, inglorious, dragged the chain
Of Edward's sable-crested son?

Hurled from his throne when boastful most,
And captive led o'er Albion's coast.

'Or, in glory's later hours,
When high the Gallic lilies waved,
Pale Europe shook through all her powers,
And bloated Bourbon deemed the world enslaved—
Has France, has England yet forgot
Thee, Ramillies! or Blenheim's iron scene?
The victor laurels, bright and green
Reaped o'er either kindred spot,
Reaped mid a flood of Gallic blood,
That to his native shore
Exulting Marlborough bore,
And twined, triumphant, round Britannia's brow—
Till now perennial—fade they now?'

That the palm of victory, thus frequently and eminently won by this island from her antagonist, should now wither, the poet hopes and prophesies to be utterly impossible. So hopes and so believes, with him, every contemplative lover of his country. For a proof that Englishmen of the present day are equal in martial virtue to their sires, Mr. Good exultingly calls on Bonaparte to recollect their late exploits at Acre, passes in review before him the battle of the Nile, and the triumphant death of the much regretted Abercrombie. He next apostrophises France on her infatuate folly in hugging the chain of a foreign despot, far more galling than the yoke of the Bourbons; reverts to the different sentiments of the true lovers of liberty; and invokes the shades of the heroes of Runymede, to smile propitiously on the congenial spirit of their progeny.

The following is the concluding stanza:—

'No—let the upstart ruffian rave
From the dull Po to Weser's frozen wave:
Let base Batavia, Belgium, Rome,
Or, worthy of a happier doom,
Helvetia, tell through all their shades,
Of murdered sires, and ruined maids,
Of barren fields, and plains deserted,
Of temples robbed, and towns subverted;—
Let Spain, too lazy to be free,
Join in the victor's Vandal rout;
Let Prussia's lord, with doubtful knee,
Bend at his shrine, or deprecate his shout—
Though all the subject world attend,
Here, tyrant! shall thy triumphs end:
Touch but Britain's steel-clad shore
Thy splendid bubbles all shall burst,
Earth dread thy tyger-fang no more,
And greedy Vengeance glut his thirst.'

The mind of every patriot cannot but glow with the sweetest sensations, when he reflects on the spirit of unanimity which at this moment pervades the nation. Men of first-rate talents, of every descrip-

tion, are now clubbing their abilities, in every diversity of way, to stimulate the exertions of their fellow-citizens. In the writer of the present paper, our readers will recognise the learned translator of the Song of Solomon: and we are glad to see, that, while the generality of our patriotic effusions are addressed to the unlettered multitude, the complaint advanced by the editor of the last article is in a considerable degree removed by the present performance; and that the man of taste and education is now no more suffered to pass without his animating incitation, than the artisan or the peasant.

ART. 25.—*A Warning Voice! or, the frightful Examples and awful Experience of other Nations: submitted to the serious Consideration of the People of Great-Britain and Ireland; with a true but short History of Buonaparte. By George Briton.* 12*mo.* 3*d.* Hatchard. 1803.

The patriotic utterer of this *Warning Voice* has a direr hatred of Corsicans, than even of Frenchmen. 'Buonaparte,' says he, 'is a Corsican! and Corsican and plunderer, Corsican and pirate, have long and proverbially been the same; and, of all beings, none is more blood-thirsty, none is so savage!!' But why, in the fury of his indignation, he should think it necessary to bespatter with abuse the late unfortunate Theodore, to whom this island offered an asylum, and afforded a peaceful grave—or what mischief has ever resulted to his country, or to himself, from the calamitous life of that ill-fated prince—we are totally at a loss to conjecture. The author has presented us with a new history of the family of the Bonapartes, and a history altogether different from many which have hitherto been circulated concerning him. We confess ourselves not sufficiently skilled in the archives of Corsican genealogy, to determine as to the truth of this new-fangled lineage: it is, however, for any thing we know to the contrary, as likely to be correct as that published at Paris about two years ago, and translated into our own language.

'It appears' (says the writer), 'according to a book published at Genoa by a bookseller, named Rossi, that the consul Buonaparte is the son of Joseph Buona, a butcher of Ajaccio, and of the daughter of a journeyman tanner. During the troubles of Corsica, Joseph Buona headed a desperate gang in favour of Theodore, who rewarded Joseph, and added to his name *Buona*, which signifies *good*, the word *parte*, which signifies *part*: that is *Goodpart*, because he took *his* part: which was so far good as to obtain Joseph this favour. This Joseph Buona was the son of Carlo Buona, who kept a little alehouse for the fishermen and boatmen; but Carlo having proved a murderer and a robber, he was condemned, and died aboard the gallies at Genoa. The wife of Carlo Buona was a most infamous and abandoned woman, who, flying from her country on account of her crimes, became guilty of others at Geneva, for which she was condemned, and died in a house of correction. Such is the nature, of that noble race, from which the first consul of France is descended; and he certainly does not belie the character of his origin. He affords a striking and horrible example that other animals, besides tigers and bloodhounds, retain the qualities of their race. His grandmother fell a public example of infamy;

his grandfather suffered the ignominious punishment due to murder and robbery; and his father, who was by trade a butcher, raised himself by a desperate enterprise, only to pave the way for his becoming afterwards a traitor to that country, wherein he had been exalted from his low estate. For, acting as a spy for the French against his country, he opened the path for his son Napoleone, whom he sent to France to be admitted into the military school, where he was supported and educated by the bounty of a beneficent monarch, and the French nation; to both of whom, however, this same son of the traitor Joseph, this same Napoleone Buonaparte, has successively proved an abandoned traitor. And that he has also proved himself to be a robber and a murderer, far beyond the extent of his grandfather's or grandmother's crimes, which made them infamous beyond death, will appear immediately from what may, with great rigour of truth, be termed his own confessions. But it will be necessary, before we read these consular confessions, to take a short view of his conduct and career, from the time of his quitting the military academy until he became a consul.' P. 4.

Our author follows him with equal spirit, and equal destestation, not only till he becomes a consul, but through the more prominent events of his life which have since occurred; and he finds, in every instance, the blood of the *butcher* still running in his veins. *Carnage* is his only delight; and he has already made half the world a *slaughter-house*.

ART. 26.—*Bonaparte's Soliloquy on the Invasion of England. An Essay in Blank Verse.* 8vo. 1s. Scatcherd *and* Letterman. 1803.

It should seem from this soliloquy, which is probably so far penned in the very spirit of truth, that Bonaparte has made a rash vow, and that he would be glad to retract his pledge of an invasion, if he knew how to accomplish it with credit. Bonaparte however is, we conceive, too well acquainted with geography, to have conceived, with this interpreter of his secret thoughts, that the epithet of *Great* was attached to the British island from the cause assigned in the following verses:—

'What! though the impotence of Europe long,
Or blindness (which is unimportant now)
Has yielded to this island's vanity?
What, tho' the name of *Great* to *Britain* tacked,
Through other nations' folly, not her pow'r,
Almost to frenzy hath elated her
With fancied grandeur, rank, and dignity,
As tho' the title thus assum'd were earnt?
The vainest are the weakest, soonest crushed.' P. 2.

We apprehend that the following lines are intended to prove that Bonaparte knows no more of English metre, than he does of English manners; at least we can account for their deficiency upon no other grounds.

'If, like Batavia, or Helvetia,
Enviable states! of independence

Rid, and cares of government; from perils
Of pow'r, which few are born to wield, released;
If, like Italia, or Hispania,
Whose tit'lar king submissive wears a crown
He had not worn this day without my leave;
Britannia had obsequiously complied
With my desire: Britannia too, like them,
Had flourished still, but not triumphantly:
A rival's triumph is a rival's bane.
Her rivalship shall therefore terminate,
And this defenceless isle lament the day
She scorned my courtesy, my wrath defied.' P. 8.

It must be admitted, however, from the verses that follow, that the chief consul is a better reasoner than a writer.

'Here then I pause again; good reason why.
If Britons are so brave in distant climes,
In every land which knows the British name;
From free-born Britons, on Britannia's shores,
Contending for their lives and liberties,
Their properties, and all mankind holds dear,
What have I to expect?' P. 13.

What, indeed, either as a warrior or a poet?

ART. 27.—*Patriotic Effusions, resulting from recent Events, and from the Circumstances of the Times.* 4*to.* 1*s.* Cadell *and* Davies. 1803.

These effusions consist of verses written in 1798, on lord Nelson's victory in Aboukir Bay—of other verses entitled Ambition, addressed *to the Great Nation*—and of several short *jeux-d'esprit*. From the latter class, we shall copy the following version of a loyal epigrammatic attempt in French.

'Les Emigrés Anglois.

'Les traîtres d'Angleterre font basse reverence,
Pour pousser leur desseins, au consul chef de France;
Le politique trop fin à traîtres se fier,
Il tire leurs vers du nez, et donne leur congé.

'Imitated.

'The traitors of England, their views to advance,
Bow low to the consul, and traitors of France;
But the consul, too wise to trust *them long there,*
Soon pumps out their treasons, and sends *them back here.*'
P. 16.

Of the verses before us, we have selected *them here,* as a fair specimen of the general merit of the whole: but, if the writer had been at our elbow, he might perhaps have pointed to *them there* in their stead.

RELIGION.

ART. 28.—*Practical Lectures on the proper Lessons of the Old Testament, for the Morning and Evening Service of every Sunday throughout the Year. By F. T. Travell, A. M. &c.* 12*mo.* 4*s.* 6*d. Bound.* Rivingtons.

We cannot too much commend the plan of this worthy pastor; and, in perusing his work, we could not but regret, that, at the Reformation, the portions of Scripture appointed to be read on the Sunday had not been so selected, as to present a continued narration of the most interesting events from the creation to the final consummation of all things. In the present state of the Sunday lessons, however, much may still be done by a judicious minister; and, if he devote one part of the day to an explication of the chapters read on that day, his hearers cannot fail to carry home with them much useful instruction. This plan has been pursued by the writer of the work before us; and the lessons of the day, thus arranged, have each afforded him matter for a short discourse. In the beginning of each lecture, he has explained the history contained in the lesson or prophecy, if there were one; and in the conclusion has advanced some apposite reflexions. As an instance, we subjoin the close of the lecture on the leprosy of Naaman and Gehazi.

'The first thing to be considered in this chapter, is Naaman's anger and refusal to comply with the directions of Elisha. In this we behold too plain a picture of ourselves: we are ready to refuse even the blessings which God offers us, if they do not exactly suit our fancies. Let it be a warning to us not to suffer our passions to get the better of our reason, but humbly to comply with those directions, which God in his mercy shall point out, as most conducive to our happiness. What a lesson does the example of Gehazi hold out to us, to beware of covetousness and falsehood! justly was he punished by a disease, which rendered life itself a burden. In this life indeed the greatest crimes do sometimes escape punishment: but let not the sinner triumph in his fancied security; the day is coming, which will bring all things to light; and he will have a wretched exchange, who, though he may escape a temporal punishment, becomes a prey to the worm that never dieth, and to the fire that never is quenched.' P. 271.

ART. 29.—*An Essay on the internal Evidences of Christianity: published in Pursuance of the Will of the late Rev. John Hulse, of Elworth in Cheshire, as having gained, in* 1802, *the annual Prize instituted by him in the University of Cambridge: by John Scott, B. A. &c.* 8*vo.* 2*s.* Hatchard. 1803.

This is a proper subject for a scholar; and, from his having obtained an academical prize, we had reason to pre-conceive that the essay was possessed of a considerable degree of merit. The writer opens with a significant motto from Cowper; and shows, that, as in all works of art the manner and style of eminent artists are easily distinguishable, so, in the works of the greatest of beings, a style must be

discovered which it is out of the power of mortals to imitate or attain. With the view of evincing the excellence of this style as perspicuous in the Scriptures, the writer examines the principle points of Christianity. The nature of God claims his first attention, on which he justly observes that an—

'— error here is fundamental. If a wrong object of worship be proposed, nothing in the mode of worship prescribed, or in the particulars of duty enjoined, can compensate for the fault. The religion itself is radically corrupt, and must be abandoned.' p. 7.

To the Scriptures alone, then, must we look for truth on this important subject, which teach us, that, 'to confess more Gods than one, or to associate any creature with him in the honours of worship, is in the highest degree unreasonable, and even impious.' The simplicity of Christian worship naturally follows; and the chief points of Christianity are brought, in order, before us, not with a view to controversy, but to show the excellence of the system; for the former is precluded, by pre-supposing that the doctrines of the church of England, as maintained in the thirty-nine articles, contain the fundamental truths of Christianity. The work does honour to the university, and is a convincing refutation of the idle opinion, that, in our public colleges, religion does not make a material point of public study.

MEDICINE, &c.

ART. 30.—*Practical Information on St. Anthony's Fire, or Erysipelas; and on erythematous Affections in general; as also on the Measles: in which new Modes of Treatment are communicated. By E. Peart, M.D.* 8vo. 1s. 6d. Miller. 1802.

Dr. Peart continues to prescribe the volatile alkali in the complaints mentioned in the title; though, with respect to meazles, as his practice has been less frequent, he is less confident of success. He does not, indeed, recommend this medicine as alone capable of effecting the cure; but he thinks that it lays the foundation for the operation of other medicines. Erysipelas, in his opinion, bears opium with advantage sooner than the scarlet fever.

ART. 31.—*An Examination of Dr. Heberden's Observations on the Increase and Decrease of different Diseases, and particularly the Plague. By William Falconer, M.D. F.R.S.* 8vo. 6d. Robinsons. 1802.

Dr. Falconer reviews the Observations of Dr. Heberden, so far as they respect the plague; and he endeavours to show that it is a peculiar and distinct disease, not owing to close habitations, filth, or other morbid effluvia. This object he has fully attained, from a careful examination of the observations of the most experienced physicians who have practised in the East.

We do not, however, perceive that the great foundation of Dr. Heberden's doctrine is shaken by these remarks. He certainly endeavours to show that there has been no peculiar *fomes* of the disorder, that its source is at 'Nova Zemula, or the Lord knows where,' and

that other epidemics are absorbed in it. The latter point we have endeavoured to place on its proper foundation; but the disease is unquestionably distinct, and regularly epidemic, depending on a state of the air, rather than on filth or infection. Why, then, is it peculiar to the eastern regions?—it is, perhaps more quickly communicated from close habitations, and the *fomes* preserved alive in filthy hovels expands when the state of the air permits its baleful range.

ART. 32. — *A practical Synopsis of the Materia Medica, Vol. II. Part I. containing, Class II. Emollients; III. Absorbents; IV. Refrigerants; V. Antiseptics; VI. Astringents; VII. Tonics. By the Author of the Thesaurus Medicaminum.* 8vo. 3s. 6d. *Boards.* C. *and* R. Baldwin. 1802.

We have delayed our account of this part of the general work, in the hope of being able to add to it a review of the whole. The author is, however, slow in his progress; and we mean chiefly to announce the publication, deferring, till the conclusion, its common character, to which we are told the name of the author will be added. In general, however, he is already known; but we must not rudely withdraw the mask, till he chooses to lay it aside himself.

In the classes—now the subject of remark—our author's account, as usual, is short, comprehensive, and judicious. His references, however, prove that his researches have been extensive; and these will enable the reader, who has time and industry, to pursue the different subjects. We behold, with satisfaction, some judicious observations on that part of Dr. Heberden's Commentaries, where he seems to advise the bark, in fevers, somewhat too rashly and indiscriminately. What the same writer has said also, a little unadvisedly, respecting the use of the Portland powder, is equally the subject of our author's animadversion.

ART. 33.—*A domestic Treatise on the Diseases of Horses and Dogs, so conducted as to enable Persons to practice with Ease and Success on their own Animals, without the Assistance of a Farrier, including likewise the natural Management, as Stabling, Feeding, Exercise, &c. together with the Outlines of a Plan for the Establishment of genuine Medicines for these Animals throughout the Kingdom, by Delabere Blaine, Professor of Animal Medicine, &c.* 12mo. 3s. 6d. *Boards.* Boosey. 1803.

To this account of the diseases of horses, a general description of their structure is premised, illustrated by a plate; and, in the vignette, is a coloured representation of the blood-vessels of the foot. We find nothing peculiarly new in the account of the diseases; and the medicines are not described, but sold. The arguments for keeping the preparations secret are more specious than solid.

ART. 34.—*Useful Hints to those who are afflicted with Ruptures; on the Nature, Cure, and Consequences of the Disease; and on the empirical Practices of the present Day. By T. Sheldrake.* 8vo. 5s. *Boards.* Sold by the Author. 1803.

Mr. Sheldrake is a humourous author; and we have more than

once been induced to smile at his quaint conceits and singular stories. He offers, however, some sound sensible advice; and we would recommend all those afflicted with this very distressing complaint to attend to his directions.

EDUCATION.

ART. 35.—*Eighteen Conversations in Italian, French, and English. In which the most necessary Words used in Familiar Conversation are introduced. Carefully revised, corrected, and improved by an English Translation. By G. Grimani. Second Edition. 2 Vols.* 12*mo.* Dulau. *and* Co.

The multitude of school-books and grammars which have appeared, in the course of the last ten years, in the French tongue, will not at all surprise such as reflect on that horde of unfortunate men, who, driven to this isle for a shelter, had no possible means of gaining a subsistence but by setting up for French school-masters.

To *speak* a language, and to *understand* a language, are very different things; to speak a language, and to be able to *teach* it well, are still farther disjoined from each other. There is an art in communicating instruction which cannot be acquired without some pratice, and much judgement. Perhaps, out of every fifty emigrants, who lately thought themselves qualified to become preceptors, not ten understood their mother-tongue radically,—not five knew how to communicate methodically what they understood,—not one was able to apply his methodical knowledge fully, for want of acquaintance with the analogy between his own and the English idioms. It is not at all wonderful that men who had thus undertaken a task, for which they were not prepared by study, should imperfectly comprehend the ideas of others who had gone before them in the business of teaching. Many of them, therefore, must necessarily adopt modes of their own; this circumstance, backed by a little vanity to be thought authors, and a little eagerness to profit by a subscription to their works, has induced the greater part of these grammar-mongers to send into the world performances, which were never worth the expense of the ink exhausted in printing them.

We do not wish however, by any means, to say that all the latter French school-books are thus unworthy notice. On the contrary, the volumes before us will be found of considerable advantage. Their substance is, like that of many other such works, a series of dialogues; but many of them are dialogues of a scientific nature: and, whether the reader have respect to the French or Italian language, he will find an attentive perusal of them afford him much valuable instruction.

ART. 36.—*Practical Rules for the Italian Language, with Exercises, and Elements of Italian Conversation. By Henry Marius Tourner, a Native of Rome, P. T. LL. D. &c.* 12*mo.* 4*s. sewed.* Dulau *and* Co. 1803.

Mr Tourner has here given to the world a well disposed and concise grammar of the Italian tongue, which we recommend to the student,

as well for the rules contained in the accidence, as for the author's knowledge of the Tuscan pronunciation. But whilst we bear a willing testimony to the merits of the work, we cannot forbear a smile at the parade with which it is introduced. Mr. Tourner's titles of PHILOS. THEOLOG. and LEGUM DOCTOR, we should have passed over with the silence which *Italian* degrees deserve: but the affectation of uncommon learning ought to have been less apparent, or the claim to it better supported. It is not because the Polandish and Russian languages are uniformly soft, that the inhabitants speak Italian better than they do any other tongues, but because there is enough of characters in the Sclavonic dialect to signify the powers of almost all the European letters. A Russian, therefore, will catch the rough tones of the English or German, as easily as the liquid ones of the Italian or French; for he not only is used to a labial sound before several of his own vowels, but he has also a native guttural, as hard as the Spanish X. There can be no doubt, in the mind of any philologist, that the French and Spanish are derived from the Latin, as legitimately as the Italian. The first of these idioms, it is true, has a great mixture of Celtic in it; but five-sixths of the Spanish words are to be traced up to Latin roots, notwithstanding any-thing that Mr. Tourner can say to the contrary. We entirely agree with our author, that 'the language of communication, in teaching another language, should be that which is natural to the learner.' For this reason, it certainly is a bad practice to teach Italian through the medium of French; and it is still a greater absurdity to employ a Frenchman as a master, where an Italian can be got. However, we cannot so readily assent to his doctrine, that any peculiarities in the French pronunciation can prevent the different articulations of different languages. On the contrary, we know more than one Frenchman, who speak English as well as natives, though they never heard a word of the language till they were twenty years old. The first great evil to an adult, in learning a new tongue, is to affix a sound to a letter which he has not in his own idiom; and the second is to give sounds more guttural than his vernacular tongue gives the letters it has. On these two principles, we know of no man who would experience more difficulty in acquiring foreign pronunciation than an Italian.

NOVELS, &c.

ART. 37.—*Lorimon, or Man in every Stage of Life. A Novel. By M. D'Arnaud. 2 Vols. 12mo. 7s. Boards.* Lane *and* Newman.

The author follows the effects of a neglected or perverted education through every stage of life, and traces the various miseries which it occasions. Even in the successors, these miseries are continued from the same cause; and the man who neglects his children, and leaves the young idea to shoot in the distorted manner which passions and fancies may direct, will find their unkindness sharper than a serpent's tooth. His real friends are insulted and despised: his pretended ones forsake him in the hours of poverty and distress: his children neglect him, and feel, in their own persons, the effects of his misconduct. It is a great fault, in a moral view, that the relief is at last brought him by a natural child; for he, too, had been neglected: but this loose morality is too common in French novelists; and the result should be guarded against

by the translator. Few works from that nation will admit of translation, without a careful revisal, and many changes.

ART. 38. — *The Vale of Conway: a Novel. By a Lady. 4 Vols.* 12*mo.* 12*s. Boards.* Vernor *and* Hood. 1803.

This is a pleasing little tale; and the eventful changes of fortune, though somewhat too trite, frequently interest us. The characters are, however, slight etchings: they want the strong marks of originality and novelty. The work is printed at North Shields; and the author, who probably resides in that spot, or the neighbourhood, has given many pleasing and interesting descriptions of its situation and scenery.

ART. 39.—*Kerwald Castle, or the Memoirs of the Marquis de Solanges. Translated from the French, by Mrs. Barnby. 2 Vols.* 12*mo.* Wilkie.

Were an '*imprimatur*' ever admissible on English ground, it would be in the choice of works worthy of being made our own We have crudities enough of native growth, without being obliged to import others equally immature and disgusting. The present author, who merits little regard, has to complain, however, of ill treatment from the printer and translator. The errors of the press are indeed numerous: but the language is still more incorrect. The punctuation, in particular, is remarkably defective. The *peripetia* (change of fortune) springs from a motive scarcely adequate to the determination. A father refuses to yield his daughter's hand, because her suitor was not born in wedlock; and consents to the marriage, because the ceremony takes place twenty years after his birth.

ART. 40.—*Lioncel, or the Emigrant: an historical Novel, translated from the French of Louis de Bruno, a Native of the Banks of the Ganges. Embellished with Frontispieces. 2 Vols.* 12*mo.* Stockdale. 1803.

We should have given our '*imprimatur*' to this artless little tale, which is said to contain events which have really happened, and which at least might have happened. The whole is highly interesting and pathetic. It affords, we believe, a faithful picture of the enormities of revolutionists, and we will add—if addition were necessary—to the detestation, which every one must feel of French principles and French practices.

MISCELLANEOUS LIST.

ART. 41. — *An Enquiry into the Causes of the Errors and Irregularities which take place in ascertaining the Strengths of Spirituous Liquors, by the Hydrometer, with a Demonstration of the Practicability of simplifying and rendering this Instrument accurate. By William Speer, Supervisor and Assayer of Spirits in the Port of Dublin.* 8*vo.* 1*s.* Payne. 1803.

The strength of spirituous liquors varies, it is well known, with the state of the atmosphere; and to ascertain this variation several ingenious methods have been devised. From the revenue being concerned in the investigation, the subject has, indeed, been profoundly

studied; but there are still irregularities attending the use of Clarke's hydrometer—that generally employed at present—which are pointed out, in the work before us, with great judgement. To obviate them, the writer has devised a very simple plan, which seems to offer considerable advantages to the dealers in spirits, and to the public in general: it is described by the inventor in the following words.

'This new hydrometer is made of hard brass: the ball is shaped in the form of a pear, being nearly two inches in diameter at its greatest dimension, and two inches and a quarter in length: the lower stem measures one inch and a half, and is in shape a prism, each side measuring one eighth of an inch; to the lower end of this a round weight is fixed, the diameter of which is seven-eighths of an inch The upper stem is in length five inches and an half, and is an octagon, each side being somewhat less than an eighth of an inch wide: each of these sides is graduated for a temperature engraved on the top, the lowest being 35, the 2d 40, and so increasing by five until it reaches 70. The zero, or proof of point, is marked ⊘, and the gradations of strength (numbered at every 4th) amount to sixty-six, and those so clearly distinct, that at the over-proofs they will admit of a sub-division, and by that means indicate an half per cent. These divisions are not at equal distances; an error which takes place in the present Irish, and several of the old hydrometers, but widen in proportion as the specific gravity of the spirit diminishes; and being graduated with spirits of known strengths at every 4 per cent. the intermediate per centages are adjusted by interpolation.

'To prevent any error which might arise from taking the indication of strength from the wrong side of the stem, an index is applied on the top of it, with an opening to shew the figures which point out the temperature. This index, which applies merely to the purpose here mentioned, may be removed lower to any part of the stem, but above the surface of the liquor, without affecting the accuracy of the instrument, as neither its weight or dimension is changed; and being of a different colour from the stem (sanguined steel) it forms a contrast with it, and, as it were points to the indication sought for, by which every danger of error, in this respect is removed.

'Although this is the only use of the index, when the temperature shall be found one of those eight marked on the stem, yet it is necessary that the instrument shall accord with the four intermediate degrees between each of the adjoining slides; for this purpose one of two other indexes of different weights are occasionally substituted for the first one, in order to lighten the instrument so as to accord with the decrease of gravity which takes place in the spirit by the increase of temperature. Therefore the manner of using the instrument is as follows:

'Supposing the temperature to be 50, nothing further is required but to place the index No. 1, (each being marked so as easily to be distinguished) on the side marked 50, and immerse the instrument, which at once shews the strength. Should the temperature be 51 or 52, instead of index No. 1, use that marked No. 2:—Should it be 53 or 54, use index No. 3, the instrument having been adjusted with these two auxiliary indexes, in the one case at a temperature of $51\frac{1}{2}$, and in the other $53\frac{1}{2}$, these four intermediate temperatures are so ac-

corded, as to be either the actual one, or within half a degree of it.—And they apply in all cases, to the four intermediate degrees of temperature, and no other appendage required to enable the instrument in this plain and simple manner to measure sixty-six gradations of strength with an accuracy which, it is presumed, is fully sufficient for either revenue or commerce. No weight requiring different immersions to find out that which is the proper one; no temperature omitted to create doubts, or false indications of strength; no fraction in the per centage to operate either against the revenue or the merchant; no gradation of strength left unascertained, or determined by conjecture; no doubt remaining as to the correct strength of all the various gradations; and no second inspection and subsequent combination to be made, requiring the aid of, and liable to the errors of, a sliding rule.' P. 36.

ART. 42.—*The Speech of the Right Hon. Lord Carrington, delivered at the Board of Agriculture, on Tuesday, March 15, 1803. Printed by Order of the Board.* 4*to.* No Publisher's Name. 1803.

This speech, pronounced when lord Carrington left the chair of the Agricultural Society, gives a short account of its transactions during his presidency. It was partly in the eventful season of the dearth; and the chief point which now relates to the public, is the circumstance which threw some odium on the society. Amidst several resolutions adopted from the county of York, one of them related to the abolition of tythes, or was rather in favour of a commutation instead of tythes. His lordship disclaims, for the society, every view of that nature, and attributes the introduction of the resolution to inadvertence.

ART. 43.—*Extracts from a Correspondence with the Academies of Vienna and St. Petersburg, on the Cultivation of the Arts of Painting, Sculpture, and Architecture, in the Austrian and Russian Dominions. To which is prefixed, a summary Account of the Transactions of the Royal Academy of London, from the Close of the Exhibition* 1801, *to the present Exhibition at Somerset House,* 1802. *By Prince Hoare, Member of the Academies of Florence, and Cortona, &c.* 4*to.* 2*s.* 6*d.* White. 1802.

This may be styled an annual history of the Academy, from 1801 to 1802. Mr. Hoare, who is the foreign secretary, proposed to open a correspondence with the several academies in Europe, to obtain a general knowledge of the present state of the fine arts in different countries. In this volume, we find only the letters from Vienna and Russia: but they afford a pleasing view of the abilities and taste of these academies; and the former letter was accompanied by a work, entitled, A History of the plastic Arts at Vienna, of which an abstract is added. We trust this plan will be continued; and that, when the devastations of war shall have ceased, diplomatic correspondence and dispatches will be pleasingly superseded by these reciprocal communications of national taste and judgement.

APPENDIX

TO

THE THIRTY-EIGHTH VOLUME

OF THE

NEW ARRANGEMENT

OF THE

CRITICAL REVIEW.

ART. I.—*Histoire des Mathématiques, &c.*

History of the Mathematics. By J. E. Montucla. (*Concluded from Vol.* 37, *p.* 495.)

WE now enter on the fourth or last volume of this celebrated history, which comprises large and detailed accounts of improvements, during the eighteenth century, in astronomy, navigation, geography, music, &c. with several smaller additions, in the form of supplements, to former articles, and concludes with a short narrative of the author's life. To this volume is prefixed an engraved portrait of the editor De Lalande, in the same manner as the former is embellished with one of Montucla himself. The tables of contents of each book are here, however, strangely omitted, notwithstanding their use, and the regularity with which they were continued throughout the former volumes; it is a departure from the original plan and practice of the author, which the editor must find it difficult to justify. The books, nevertheless, are still divided into articles, or large sections, as before.

The fourth volume commences with book V, part V, of the history, and treats of the astronomy of the planets, of the stars, and of eclipses. The first article or section in this division gives an idea of the system of the world. The eighteenth century has been exceeding favourable to the science of astronomy, having communicated to it more numerous and more important discoveries and improvements than all the ages that have preceded it. In the earlier centuries, the very limited and imperfect state of geometry, of optics, and of analyses, necessa-

rily precluded any great advances in astronomy, either in the theory or the practice of the science; not to mention the powerful impediments to all free inquiry, arising from the blind zeal and ignorance of intolerant theologians. A more liberal spirit, however, has since been evinced, which, aided by the new analyses and other discoveries in mathematics, and by great improvements in our telescopes and other instruments for observation, has carried the science of astronomy to a high degree of precision and consequence. Hence we have attained an accurate estimate and calculation of the motions, the affections, and the phænomena, of the great bodies in the universe; the distances, magnitudes, and mutual actions, of the various bodies in the planetary system; and even the discovery of several new planets, satellites, comets, and thousands of stars never before seen or suspected. Hence the aberration of the stars, the motion of light, the measure and figure of the earth, the distances and magnitudes of the sun and the other planets, the nutations of the stars, the returns of comets, the transits of Venus and Mercury, the nature of the sun and of light, the discovery of the three primary planets, Herschel, Piazzi, and Olbers, and many satellites; new and accurate instruments for land and sea: these and many other valuable acquisitions have given, as we have just observed, a new appearance and importance to the science of astronomy. It is to these novel and valuable acquisitions that the History now advances.

Astronomy may be properly divided into two grand parts; *viz.* the one practical, or that which is purely dependent on observations and common elementary geometry; the other—which may be denominated its physical branch—that which appertains to the affinities and affections of matter, and to the modern and improved analysis. Both of these have, in the eighteenth century, contributed in a great degree to perfect the science of astronomy. The former, restricting itself to observations of natural phænomena alone, collected and presented facts for the basis of an accurate theory; the other, penetrating further, investigated the mechanical causes of the phænomena presented, and subjected them to calculation. For example: in the theory of the moon, the practical or astronomical observer labours to determine her different inequalities or deviations from a regular path in the heavens, according to her various aspects and wanderings, both with respect to the earth and the sun. These being attained, the astronomer was next enabled to calculate experimentally the several equations in the moon's motions; and hence Mayer derived his theory and tables of the moon, which approach so near to the truth. In the mean while, our physical astronomers and profound analysts, such as Euler, Clairaut, d'Alembert, Lagrange, Laplace, commencing with the principle of the mutual attraction of the celestial bodies on each

other, particularly the combined action of the sun and earth on the moon, laboured to determine the curve which she describes about our globe, and thence to establish rules for calculating her motions.

The History commences with the first of these divisions, or the practical branch; it describes the numerous and important observations and discoveries which have been made within the period referred to; and subjoins an account of the more remarkable astronomers. This section is introduced by a particular description of the solar system, beginning with the sun, and afterward noticing the several planets in their order. In all these descriptions, and the whole of this astronomical part, the editor, M. Lalande, who has taken the principal share in its composition, perpetually disgusts and fatigues the reader by his incessant vanity in referring to his own works and opinions in almost every page and passage.

Having run through the discoveries and circumstances of the planets and their satellites, the History then proceeds, in the second article, to those relating to the fixed stars; and explains the observations and conjectures concerning their numbers, parallax, distances, magnitudes, catalogues, motions changeable and periodical, new stars, double, triple, &c. stars, groups, clusters, and nebulosities, milky way, construction of the heavens, or stellar disposition. The third article treats of the motions of the sun, or rather of the earth, as affected by her mutual attractions with the moon, with Jupiter and Venus, and with comets, and also by the possible resistance of an ethereal medium; discussing the questions of the equations of those bodies, the eccentricity of the earth's orbit, the length of the year, and whether permanent or variable, as also her distance from the sun. It is here stated, as the opinion of Euler and other philosophers, that some ethereal fluid must occupy the planetary regions; that this medium, however rare or attenuate it may be, must give some small resistance to the earth and the other planets in their motions through it; the consequences of which must be, that every planet must revolve in a progressive approximation to the sun, and occupy a shorter period in every successive revolution, till at length it must of necessity fall into the solar substance, and be absorbed; first the planet Mercury, next Venus, then the earth, and so on, in the order of their position.

Art. IV treats of the moon's motions considered astronomically, or of the inequalities discovered by observations. Under this head, the lunar observations, the discoveries, and the tables of calculation, of many astronomers are described; and particularly those of Tycho Brahe, Kepler, Horrox, Halley, Mayer, Mason, Burg, Bouvard.

In the fifth article commences the physical consideration of

the celestial motions; and first the physical theory of those of the moon, as determined by Newton in his Principia, and the principles of universal gravitation, as applied to the mutual influences of the sun, moon, and earth. These three bodies are considered in their various positions; and the effects they produce on the moon's orbit and motions are exemplified in the quantity of different equations and variations of her orbit, her nodes, apses, &c. The same subject is further continued in the next article, and in a more dilated manner, as well as with more accuracy. The problem is here rendered general, under the name of the problem of the three bodies, in which it is proposed to determine what course three bodies will assume, of given masses, and which shall mutually influence one another, after being projected with given velocities, from given places in given directions. The History announces the various success of several authors in their contemplations on the general state of this problem, and their particular applications to the delicate variations in her motions, as influenced by the attractions of the earth and the sun, considered strictly according to Newton's law—*viz.* in the inverse ratio of the square of the distances—a law which has been fully confirmed by a comparison of the results of physical and analytical calculations with the most accurate astronomical observations. These calculations and observations have given rise to the construction of several sets of very accurate lunar tables, which are still employed in the calculation of her phases, as those of Euler, Clairaut, d'Alembert, Mayer, &c. And among the chief authors who distinguished themselves in these abstruse inquiries, are enumerated Clairaut, d'Alembert, Euler, Walmesley, Lagrange, Simpson, Frisi, Fontaine, Lambert, Laplace.

In the seventh article is treated, in particular, the secular equation of the moon, called her acceleration. This effect in the moon's motion was discovered by Dr. Halley, in computing some ancient eclipses recorded by Ptolemy and other authors. From Dr. Halley's calculations, and several others made since his æra, compared with the records of ancient observations, it has been uniformly found that there is a certain difference between the two, and that pretty regularly in proportion to the interval of time elapsed between them, in such a manner as to evince the fact of a gradually quicker or accelerated state of that planet's motion in her orbit. To discover the cause of this appearance has employed the talents and labours of several of our first philosophers, as Euler, Lagrange, Laplace. Is the change really an acceleration in the motion of the moon herself? or is it only apparent, arising from a real retardation in the motion of the earth? either of which events would have the same effect, since it is by the revolutions of the earth that those of the moon are measured in an inverse ratio, the moon's motion ap-

pearing to be so much the quicker, in an exact proportion as that of the earth is slower. After a variety of fruitless attempts to discover the cause of this appearance, by several of the philosophers we have just enumerated, it at length occurred to Laplace, that the gradual diminution in the eccentricity of the earth's orbit might occasion a decrease in her comparative motion with the moon, and consequently produce the effect in question. Accordingly on trial, by a nice calculation of the result of this cause, he found it exactly to correspond to the quantity given by observation, and thus established the fact beyond any further doubt.

Art. VIII treats on the moon's parallax, as observed and computed by different astronomers. Ptolemy made the quantity of the horizontal parallax to be between 54′ and 103″, according to the different distances of the moon from the earth: at present, by more accurate determinations, the limits are 53′ 28″ and 61′ 26″.

The ninth article treats of the eclipses of the sun and moon, in which an explanation is given of the nature and principles of these eclipses, and an account of some of the best writers and writings on these subjects. Upon this occasion, as on many others, occurs a remarkable instance of the editor's partiality to the French astronomers, and injustice to the English, in speaking of the method of constructing solar eclipses, and exhibiting their appearance and path on the earth. He here ascribes the first performances of the kind to J. D. Cassini, and refers, for the publication of it, to a memoir of Cassini in 1706. He afterward enumerates several other persons as having followed in the like practice, without so much as noticing the original publisher of such constructions and exhibitions, *viz.* Flamsteed, the first astronomer-royal of England, who invented the method in 1676, and published it at large in 1680, in the first volume of Sir Jonas Moore's System of Mathematics—namely, in that part which is entitled 'the Doctrine of the Sphere,' the whole of which was written by Flamsteed, and in the preface to which piece he explains the date and circumstances of the invention. Indeed Sir Christopher Wren had practised the same method sixteen years earlier, but never made it known till after Flamsteed produced his to the public.—In the next article is treated the method of finding the longitude of places on the earth, from the eclipses of the sun and moon, as also from the occultations of stars by the moon. In this article again the editor Lalande makes no mention of the English astronomers, although we know that they had the principal share in the business, and that it was Flamsteed who first proposed and practised it, as may be seen in his treatise above quoted.

Art. XI illustrates the transits of Venus and Mercury over the face of the sun, and the sun's parallax deduced from observa-

tions of these planets. The transits of the two inferior planets over the sun's disc are phænomena whose observation was reserved for modern astronomy, since some such instrument as the telescope was necessary to their notice. Such a notice, however, was not merely a matter of curiosity; for they determined, first, the sun's parallax, and, in consequence, the relative magnitude of all the bodies in the solar system, with the relative extent of their orbits. The transits of Mercury are very frequent, but those of Venus more rare, though these latter are of greater consequence in astronomical decisions. Since the use of telescopes, astronomers have lost few opportunities of observing such transits. The first on record is one of the planet Mercury, the 7th of November, 1631, by Gassendi; and the first of Venus was noticed by Horrox, in England, the 24th of November, 1639. But the most profitable observations of the transits of Venus were those made in the years 1761 and 1769, in which phænomena most of the nations of Europe interested themselves in a high degree, many of them expediting astronomical missions to all parts of the world where observations could be made to most advantage. The consequence of all their labours has been the determination and conclusion of the sun's parallax at $8\frac{5}{10}''$; whence it necessarily follows, from a comparison of this with the earth's diameter, that the distance of the earth from the sun is about ninety-five and a half millions of miles. Hence also are deduced most of the leading facts in the solar system; such as the magnitudes of the orbits of all the planets, their diameters, bulk, solid contents, densities, and the theory of eclipses, &c.

The twelfth article treats of the theory of the principal or primary planets, the peculiarities and circumstances attending the motions and properties of each, separately considered; and the history of the discovery of the Herschel—the other two newly discovered primary planets, Piazzi and Olbers, not being noticed, as having only been detected since this book was printed. An interesting account is here given also, from Laplace, of the cause of the secular equations of Jupiter and Saturn, experienced by astronomical observations, and which he shows are periodical, balancing and renewing themselves in certain intervals.

We now arrive at the sixth book of this fifth general part of the work. This division contains the history of physical astronomy; under which title are comprehended those parts of the science which require especially the examination of physical causes, and the calculations dependent on them—as refraction, the flattened figure of the earth, the diminution of the obliquity of the ecliptic, the satellites, the comets, the libration of the moon, the flux and reflux of the sea, &c.: though, so connected are the physical and practical branches of astronomy,

that the former have already been occasionally touched upon in the preceding chapter.

This book is divided into twelve sections or articles, the first of which treats of astronomical refractions, and of the physical hypotheses proper for representing them. In this article are some misrepresentations, as usual, by Lalande, in disfavor of the English. In stating the medial quantity of the terrestrial refraction, which he rightly does, at one-twelfth of the arc intercepted between the two stations, he suppresses the names of the philosophers (captain Mudge and Mr. Dalby) by whose observations this quantity has been settled. He mentions, indeed, the observations of the English general Roy, as it would seem, because his limits are very wide—*viz.* between the third and the twenty-fourth of the intercepted arc—but omits that of the French measurer Legendre, who erroneously fixed it at one-fourteenth; carefully announcing, nevertheless, that of Delambre, because he came near the mark—*viz.* one-eleventh.—The second article treats of the figure of the earth, such as is given by astronomic measurements, executed in the course of the eighteenth century. The figure of the earth is one of the most important considerations both in geography and astronomy. The question is, whether it be that of a globe or of a spheroid; and, if the latter, what degree of an ellipse it possesses, and whether a lengthened or a flattened one? It is clear, however, that, if the earth be not a perfect globe, it differs but very little from such a figure. This difference is to be determined in two ways, *viz.* by actual mensuration, and by calculation on the theory of universal gravitation. By both these methods it has been demonstrated that the form of the earth is spheroidal, and of that kind which is in a small degree flatted at the poles. It is the first of these methods which is discussed in the present article, *viz.* by measuring the lengths of the degrees of latitude, and by the length of the pendulum in different latitudes; and the other method is treated of in the next, or third, article. The present is indeed a very important and interesting chapter, containing a very particular account of all the measurements that have been made of the earth, in some degree, perhaps, too minute and particular for a general history. It offers us the different opinions of different mathematicians concerning the elliptic form of the earth, the accurate method of estimating it by the Newtonians, and the erroneous one of the Cassinians; together with the disputes produced by these differences, which gave rise to the test of so many actual measurements. The result of the calculations, from the whole of these, is, that the earth is a flatted globe, and that the degree of flattening, being the 334th part, is the polar axis to the equatorial diameter, is in the proportion of 333 to 334.

The third article, then, contains the history of the figure of the earth, as deduced from calculations on the principle of attraction; and on the ring of Saturn.—While some astronomers and mathematicians had been employed to determine, by actual measurements and observations, the earth's configuration, and the length of a pendulum in different latitudes, others occupied themselves in deciding upon the same facts in their cabinets alone, by physical calculations on the laws of gravity and centrifugal force. The first among these latter were Newton and Huygens, who had even produced their calculations before the new process, undertaken in France and other parts for ascertaining the form of the earth by measurement, was carried into execution.

Newton, from his principle of universal attraction between the particles of matter in the earth, combined with that of the centrifugal force arising from the earth's rotation, computed the flattened form of the earth, and the ratio of the axis to the equatorial diameter, as 230 to 231, or more rigidly, on the same principles, as 229 to 230.

But Huygens, unfortunately for himself, not approving, and consequently not adopting, Newton's law of the universal attraction of matter, conceived all the parts as of equal weight, though at unequal distances from the centre: this erroneous principle, combined in his calculations with the law of the centrifugal force, gave him a false conclusion—*viz.* the ratio of 578 to 579 for that of the earth's two diameters.

The differences in these results, and the erroneous notions of Cassini and some other astronomers in contending for the elongation instead of compression of the earth at its poles, gave rise to the laborious measurements described in the preceding article. After such actual survey, however, many other philosophers repeated the physical computations on the Newtonian principles with ample success: and, among these, the more remarkable are Stirling, Clairaut, Bouguer, Maclaurin, Euler, Daniel Bernouilli, d'Alembert, Lagrange, Legendre, and Laplace. The joint conclusions, from the calculations of such eminent men, are, that the earth is flattened towards the poles, and elevated about the middle or equator, in consequence of the diurnal rotation on its axis: that the degree of compression, however, is very small, or the total form very little differing from an exact globe, being not more than the 230th part, which is the quantity that would have arisen by supposing the earth to be everywhere homogeneous, and to have been at first fluid; but as the earth is evidently of very unequal density, the flattening must be less than the 230th part, but by no means so small as the 577th: that, from a comparison of the lengthening of pendulums in different latitudes, and other circumstances, the most probable degree of flattening is fixed at $\frac{1}{334}$th, whence

the length of the terrestrial meridian is computed, and consequently the metre or standard of the new measures: that there are probably various errors in all the practical measures that have hitherto been taken of the degrees of the meridian, partly from inattention to small celestial angles, and partly from the effects of the hollows of the seas, mountains on the earth, and more dense matters within its bowels, in disturbing the plumb-line. The article concludes with adverting to the application which Laplace has made of the same mode of calculation to the ring of the planet Saturn: by supposing this ring to consist of a very thin fluid, carried off by a very rapid rotation to a vast distance from the body of the planet, till the centrifugal force is a counterbalance to its gravity, he finds the method applies very well to its motions around the planet.

The fourth article treats on the aberration of the stars and planets, which is an effect in consequence of the progressive motion of the rays of light, combined with the motion of the observer, or of the earth in its orbit. This fine discovery was made by Dr. Bradley, about the year 1727 or 1728, with regard to the fixed stars; and the same was afterwards applied by Clairaut to the sun and planets, the effect of which ought to be considered, whenever very nice calculations of their relative places are examined into.

Article V treats on the precession of the equinoxes, and the nutation of the earth's axis. These are two effects, which arise from the inclination of the terrestrial axis to the plane of the ecliptic, and from the spheroidal form of the earth, by which the sun and moon act unequally on the protuberant matter about the earth's equator: effects, the quantity of which has been discovered by observation, and confirmed by physical calculation on Newton's principle of universal gravitation; of the truth of which, therefore, this coincidence is an additional proof. The precession of the equinoxes is the retrograde motion of the nodes of the earth's equator, after the rate of fifty seconds per year; and is the cause of the apparently continual change of place in the fixed stars, as to longitude. The nutation of the earth's axis is its libration from side to side, being drawn from its true parallelism by the action of the sun and moon, by which it is made to describe a small oval, in the course of eighteen years seven months, which, among the fixed stars, has its longest diameter 18″, and the shortest 13″. This was determined by observation, by Dr. Bradley, in the year 1737; though it was conceived, *a priori*, by Newton, long before, and calculated by him, on his principle of universal attraction, as well as could be done by the accuracy of the data then known; *viz.* the quantity of the earth's ellipticity, and the ratio of the actions of the sun and moon. Since these data have been better known, the effects have been more accurately computed by

later philosophers, as d'Alembert, Euler, Simpson, Silvabelle, Frisi, Walmesley, Laplace.

In article VI, on the diminution of the obliquity of the ecliptic, it is shown that this decrease would be at the rate of about 50″ in a hundred years, if we acknowledge the accuracy of the ancient observations, since it is stated by Ptolemy at 23° 51′, and its present obliquity is 23° 28′. But as the first quantity is probably too great, the rate is stated with more accuracy at 35″ per 100 years. This gradual diminution is traced from the ancients, through the Arabs, and the more modern astronomers, to the present time. It is shown that it arises chiefly from the actions of the planets Jupiter and Venus, the effects of which are computed as near as can be by Euler and Laplace; and whence it appears that the decrease of the obliquity will not continue perpetually, or till the ecliptic coincide with the equator, but only to a certain term; after which it will increase again to another term, so as to re-acquire its greatest quantity. The obliquity is also subject to a periodical variation, in eighteen years seven months, owing to the nutation of the earth's axis.

Article VII gives the discovery and theory of the satellites of the planets Saturn, Jupiter, and Herschel. The satellites have been useful in calculating the masses of their respective primary planets. Those of Jupiter, in particular, have also been of eminent service, in determining the progressive motion of light, and its velocity, as well as the longitude of places on the earth. It is not to be wondered at, therefore, that the most eminent astronomers have assiduously applied themselves to accurate observations on these secondary planets, and to a construction of tables for computing their motions and places; as Galileo, Reineri, Marius, Peiresc, Hodierna, Borelii, Cassini, Bremer, Maraldi, Bradley, Wargentin, Bailly, Euler, Lagrange, Laplace, Delambre, Herschel.

Article VIII discusses the subject of comets. These have been chiefly interesting, since it was announced by Newton, that comets are a kind of bodies which revolve about the sun like planets, but in very long or eccentric orbits. In consequence, Dr. Halley first predicted the time of the return of a comet, which it accordingly fulfilled in the year 1759; and this is the only comet which has yet answered to prediction. The labours of the chief astronomers who have written on the subject of comets are here minutely described.

In the ninth article, the history treats of those comets which can so nearly approach the earth, as to produce danger of its destruction. This article seems to have been written, in consequence of the great alarm excited at Paris, in the year 1773, by a paper on the same subject then written by Lalande; when it was found necessary, in order to calm the public mind,

for the lieutenant of police to require from that astronomer a memoir, to certify the public that there was no danger to be apprehended from any such kind of accident. The memoir, when written, was referred to M. Montucla, the official censor of books for that period, who gave his certificate to this effect: 'I have read, by order of the chancellor, a manuscript, entitled, "Reflexions on such Comets as can approach the Earth," and I have found nothing in it that can authorise the imaginary terrors concerning such approximation; while, on the contrary, the pamphlet seems rather calculated to appease them, by showing that such a dreadful accident, though a thing possible, is of that order of possibilities to which no reasonable being pays any attention, on account of the extremely small degree of chance of its taking place, according to the laws of probability.'

The tenth article treats of the libration of the moon, of our poles of rotation, and of the singular circumstance by which she revolves once round her own axis, in exactly the same time as she fulfils her period round the earth.

The two remaining articles of this book are on the flux and reflux of the sea; in which, after slightly noticing the vague ideas of former philosophers upon this subject, of the ancients, of Descartes, Galileo, Baliani, Wallis, &c., M. Montucla advances to an explanation of the true cause, or that which consists in the mutual attraction between the earth and the two luminaries—the sun and moon. He then adds, that, on the same principles, more particular and ample explanations have been given by D. Bernouilli, Maclaurin, Euler, d'Alembert, and Laplace.

The History now enters on the seventh book of this part of the work, which contains, in so many articles, the history of astronomical tables, of ephemerides, of calendars, of instruments, of observatories, and of judicial astrology.—The first and second articles are simply catalogues of astronomical tables and of ephemerides, with sometimes a line or two of remarks upon them, of little consequence.

The third article treats of the Gregorian calendar. The first reformation of the Julian calendar, by pope Gregory XIII, and its adoption by the catholics, was treated of in the first volume of this History. In the present article, therefore, the historian only adverts to the time and manner of adopting the correction and change, by the protestant states of Europe, with the contests that occurred on the occasion. The new calendar was first admitted into Germany, Switzerland, Denmark, and Sweden, in 1700; but into England, not till the year 1752; since which time, a difference of 11 days continued between the old and new style, till the year 1800; and, since then, another intercalary day being at that period omitted, the difference between

the two styles has been twelve days, and will so continue for several centuries to come.

The Russians, who are of the Greek church, still adhere to the old style; and it is remarkable that the present History does not in any way advert to this circumstance.

Article IV treats on the new French calendar, though in a very obscure and imperfect manner. It seems to have been the joint work of Lalande and d'Eglantine, and to have been regulated by the following positions: *viz.* 1. that the æra should commence from the foundation of the republic, or the 22d of September, 1792: 2. that each year should begin at midnight with the day of the true autumnal equinox for the observatory of Paris: 3. that the year should consist of 12 months of 30 days each, with five supplementary days at the termination of common years, and six of the bissextile.

The fifth article enumerates the various astronomical instruments that have been principally employed; such as gnomons, sectors, mural arcs, whole circles, theodolites, transit and parallactic instruments, equatorials, &c., with the names of the principal makers; among whom, of course, the English are the most conspicuous.

Observatories naturally follow from this subject; and they are noticed in the next article. Some account has been already given, indeed, in the second volume, of the two grand establishments of this kind in France and in England. But the eighteenth century has been very fruitful upon this point, as appears by an enumeration here made of the observatories constructed in all the countries of Europe, as well as in some parts of Asia and America.

In the seventh or last article of this book, a short account is introduced of the vain and pretended science of astrology. False and frivolous as this art may be, the author holds himself excusable for giving it a place, from the benefit it has produced to the true science of astronomy, and indeed to almost all the other mathematical sciences. It is no less certain than extraordinary, that the astronomy of all countries and all ages, from the Chaldeans and Egyptians down to the eighteenth century, was either judicial astrology, or a science cultivated for its benefit; and to excel, even in this kind of astronomy, it is manifest that the preparatory branches of arithmetic, geometry, and other sciences, must have been studied. We find, in this article, curious notices concerning many remarkable characters who have figured in this line. Happily the knowledge and progress of true science, particularly of the true system of the earth's motions, about its axis and round the sun, have freed the astronomers of Europe (though not all the common people) from the false allurements of astrology. Yet the Turks and the eastern nations generally still hold the fallacious notions of

antiquity; and even think, whatever we may pretend, that we no less cultivate astronomy for the sake of the occult science of astrology, than we ransack the ruins in their countries in search of lost or hidden treasures.

The next or eighth book contains the history of the progress of navigation in the eighteenth century, with regard both to the construction and management of ships. The first article treats of their construction, which attained its greatest improvement in the course of the century adverted to. A particular account is subjoined of the treatises that have been written on this branch of naval architecture, with the institutions, or acts of governments, or other plans for its improvement, projected in different countries: whence it appears that the French have paid incomparably more attention to it than the English; and that, while it has been with the former a great national object, with the latter it has been left to chance, or to the care of individuals: that the only society or association of this kind in England, which was formed in 1791, and wore the most promising aspect, has been suffered to languish and expire, through the total want of public encouragement. Hence it is not to be wondered at, that, in the article of ship-building and theoretic navigation, the French have far surpassed us.

The second article here treats of the arched or curved shape of the hull: article III, of the oars; article IV, of the sails and masts, with the action of the wind upon them: article V, of the management or working of ships. In this part, much ingenious mechanism is necessarily considered; such as the resistance of the hull in passing through the water; the action of the wind against the sails, with the manner of placing or setting these, to have the best effect; also, the position and management of the helm;—subjects which have exercised the ingenuity and learning of some of the ablest mathematicians, as Ranau, Huygens, Bernouilli, Euler, Bouguer, Clairaut, Juan, &c.

Article VI treats on the helm, which, it is well known, is a very important particular, as well for velocity of sailing, as for directing and varying the ship's motions, especially in time of action. The longer the ship, the more difficult in turning by the helm; and it is here conceived to be owing to the greater length of the French ships than of the English, that the latter, by manœuvring better, have the advantage in sea engagements.

The seventh is a very important article, and relates to the resistance of fluid to solid bodies, when moving through them. A neat abridged account is here given of the chief experiments and theories that have been made and laid down for obtaining the resistance of fluids to bodies of different shapes and in different circumstances, and for applying them to the improvement of naval architecture. These experiments and theories

are chiefly those of the philosophers on the continent, such as Bouguer, Juan, Borda, Bossut, Dumaitz, Thevenard, Romme, who have all of them laboured and written very usefully on this important and public concern. The historian might, however, have availed himself of the labours of some philosophers in our own island, particularly those of the late society for the improvement of naval architecture, who made some of the best experiments, and drew from them the most useful practical rules. The chief results noted by the historian are, that the vessel sails better, or faster, when built pretty large or thick at the prow, and drawn out long and narrow behind; also, that, with the same breadth, the prow may be considerably varied in dimensions, without altering the velocity or rate of sailing; and that it is better to make experiments on the vessels themselves, than on small models.

In the eighth article is introduced a very sensible paper on the irregular motions of a ship, called *rolling* and *pitching*, the former being the motion from side to side, and the other from end to end; in which are contained the results that have been given, in consequence of government encouragement, or directions of several learned men and mechanists, to obtain for ships under sail the greatest degree of stability.

The ninth article treats on the best distribution of the loading of a vessel, the various positions of which, it is well known, make a very great difference in a vessel's sailing. The Academy of Sciences have published many pieces on this subject, received in consequence of rewards held out to learned men for that purpose, as Euler, Bossut, Groignard, Gauthier.

The tenth article is wholly employed on an account of that excellent book, the *Examen Maritimo* of don *Jorge Juan*, formed on a happy conjunction of theory and practice.

Article XI is devoted to the writings relating to the gauging or measuring of vessels, in order to ascertain their tonnage; the twelfth to the cordage; and the thirteenth, and last, to the modes of procuring sweet and wholesome water from the salt water of the sea, by means of distillation.

To the above succeeds the ninth or last book of the history of navigation, which contains the progress of the art of pilotage, or that which respects the course and situation of a ship. Of this part, the first article treats on the mariner's compass. From the history of this instrument, it appears that it was used in Europe in the twelfth or thirteenth century. An account is given of the changes of the magnetic direction, as to declination and inclination, as also of the construction of artificial magnets; in the course of which, Lalande, with his accustomed partiality, ascribes the chief merit to his compatriots, slighting and disparaging the ingenious labours of Knight, Mitchel, Canton, &c.

Article II is employed on the history of the log, and other instruments for measuring the rate of velocity at which a ship sails; and article III, on the instruments for taking vertical or altitude angles, for determining the latitude, &c.; such as the astrolabe, arbalate, cross, quadrant, sextant.

The remaining three articles of this book are devoted to the history of the longitude: the fourth, contains a number of the more early trials and projects, which have been since mostly laid aside: the fifth, the discoveries of marine time-keepers; and the sixth, and last, the method by means of the moon, or what is commonly called the lunar method;—articles which are extremely curious and valuable, and exhibit a very clear and explicit account of all matters relating to the longitude.

To the foregoing books succeed six supplements, and the life of Montucla. Of these supplements, the first is a short one on the machine called the capstan: the second, of considerable extent, comprises the history of geography: the third, the history of the quadrature of the circle: the fourth, that of music: the fifth, an apology for the ancient philosophers, concerning the sentiments which have been attributed to them; and the sixth, the calculus of derivatives, by M. Arbogast. The history of geography contains a very neat condensed account of the discoveries of the different quarters and parts of the earth, both ancient and modern. The history of the quadrature of the circle offers, in many respects, a faithful and clear statement of that curious matter, with the exception, as usual, of some unjust omissions with regard to the English nation. The author ascribes to Leibnitz the invention of the series $1-\frac{1}{3}+\frac{1}{5}-\frac{1}{7}$, &c., for the quadrature of the circle in the year 1673, though, in reality, it was given some years earlier by James Gregory; and attributes to Euler the method of dividing an arc, having a rational tangent, into two or more arcs having also rational tangents, for the purpose of finding more quickly converging series for the quadrature of the circle; although this method had been practised long before by Mr. Machin and Mr. William Jones. He has also omitted the mention of a further extension of the method, and other more quickly converging series, given in the Philosophical Transactions of the year 1776. In the fifth supplement, M. Montucla very ingeniously defends the ancient philosophers from many absurd and ridiculous notions and opinions concerning the celestial bodies and the universe, which have been ascribed to them by the misrepresentations of the vulgar and the ignorant.

To these articles is added, as we have already observed, some account of the life and writings of the very learned and ingenious author, M. Montucla; from which it appears that he was not less amiable in the private walks of life, than respectable in his public character, and in the republic of letters. He was

born at Lyons in the year 1725; spent a great portion of his life in the office of first commissary for the king's buildings; lost his employment and his fortune by the revolution; and closed his useful labours, and his life, with the end of the year 1799.

We shall only add, that, from the form in which these volumes are printed, and the want of a good table of contents at the head of the volumes, and of a much larger alphabetical index at the end of them, we have found some difficulty in tracing any particular fact. We may also remark, that this History, now extended to four large 4to volumes, of near 800 close pages each, has become too laborious for general reading, and that it enters too fully and minutely into the particulars of every science, as if with a view rather to teach those sciences to novices, than to epitomise their history for the learned.

ART. II.—*Parnasso degl' Italiani Viventi.* Pisa.
Parnassus of living Italians. 12*mo. Vols. I—XV.* Imported by Gameau and Co.

TO what extent this work may proceed, we know not. We have already received fifteen volumes; and more will probably be added in a short time. It is introduced by a brief advertisement from the editors, in which we are informed, that, while themselves have been anxious to make their selections from those poets of the present day who have been chiefly celebrated in Italy, and whose fame has extended beyond their native country, the pieces actually admitted are those which have been pointed out by their respective authors, as what they have severally conceived their happiest productions, and on which they build their fairest hopes of longevity, if not immortal reputation. The principal contributors to the Parnassus are Pignotti, Savioli, De Rossi, Pindemonte, Bertola, Bondi, Anguillesi, Pagenio. We were surprised to find appended to vol. X, containing, for the most part, the poems of Bertola, a long *prose* éloge on the late M. Gessner: and we expected to have seen in the collection before us some specimens from Alfieri and Melesigenio. Why these names have not appeared in the list of their contemporaries, and their productions superseded the trite and stupid amorets of Savioli, and many of the fables of De Rossi, we know not, unless it proceed from a most unjustifiable partiality. We nevertheless receive with complacency the work as it is, since it enables us to fill up a considerable chasm in our journal, occasioned by a ten years' war.

The collection opens with Poesie di Lorenzo Pignotti, Aretino—Poems by Lorenzo Pignotti, of Arezzo, which extend to the first three volumes. Pignotti, alas! is no longer one of the living Italians. He was one of the most illustrious and most

unfortunate victims of Italian barbarity during the revolutionary waf. He fell into the power of the insurgents in Lombardy, who punished him for principles worthy of a better age and a better country, by forcing burning charcoal down his throat.

Pignotti's mind was full of English literature; and he had imbibed with it the spirit of English liberty. It is in these words he makes the shade of Pope address him:—

'Tu la Toscana cetra osi al Tamigi
Suonare in riva? Tu negletto figlio
Della misera Italia, che perdeo
Il forte immaginare, e del robusto
Immaginare le bell' arti figlie,
E tutte le virtù, quando gl' imbelli
Figli sdegnando, e l'ozio inonorato,
Da lei fuggi la Libertà Latina?
Augusta Liberta, che sull' amiche
Angliche arene alfin raccolse il volo,
E gode star sulle tonanti prore,
Che dove cade il giorno, e dove nasce,
Portano al suon de' fulmini guerrieri
Della Britannia i cenni, e batte intorno
All' ondeggianti e tremule bandiere
Colla Vittoria le purpuree penne.
Qui di Parnaso agli animosi figli
La Libertà, cinta d'allori il crine,
Spira, non già voci di senso vuote,
Non dolci inezie, o adulatrici rime
A cantar use con pedestre stile,
O i frequenti Imenei male assortiti,
O d'un mezz'uomo la feminea voce,
O d'innocente e tenera donzella
I troppo presti ed imprudenti voti;
Versi, onde copron di rossore il volto
Le Dive di Permesso, e che, qual vile
Polve che s'alza e cade al rapid' urto
Delle striscianti il suol fervide rote,
Han la vita e la morte il giorno istesso;
Ma versi quali un tempo, ai dì migliori
Suonar ne' boschi che il frondoso crine
Spiegan di Delfo sulle sacre rupi,
Ovver ne' campi, ove scorrendo vabno
Il girevol Meandro, il freddo Ilisso.'

'Darest thou sound upon the bank of Thames
The Tuscan lyre? thou, the neglected son
Of wretched Italy?—Italy, who lost
Mighty Imagination, and the Arts,
Imagination's beauteous progeny,
And all the Virtues;—lost them at that hour
When Latian Freedom, in indignant scorn
Of her unwarlike sons and shameful sloth,

Fled: high-born Freedom, who, upon the sands
Of friendly England, checked at length her flight,
And loves to take her stand upon the barks
That to the rising and the setting day
Convey Britannia's thunders, and beneath
Britannia's floating flag, with Victory,
To clap her purple pennons;—Freedom there,
Her tresses bound with laurels never-sere,
Inspires the sons of song; not with sweet sounds
Of empty melody; nor servile rhymes
Of praise; nor frequent hymeneal hymn,
When some young virgin, in unhappy hour,
Pledges the rash irrevocable vow;
Nor for some semi-man's effeminate voice—
The feeble strain. Th' Aonian deities,
Indignant, blush at these unworthy songs—
Ephemeral melodies, which, like the dust
That curls around the chariot's whirling wheels,
Rise for a moment, fall, and live no more.
But Freedom there inspires such verse, as once
In better days re-echoed in the woods
That wave upon old Delphi's sacred heights,
Or where Mæander winds his mazy way,
Or cold Ilissus flows.'

The fables of Pignotti form the greatest and best part of his works. Many of these are taken from English and French writers: but, as he has properly observed in his preface, the chief merit of a fabulist is his manner. They are introduced by this apologue:—Truth was sent down upon earth with the mirror which represented all objects as they really were, not as they seemed. She soon feels the unfortunate effect of possessing this dangerous power: she flies for shelter to the theologians: they accuse her of impiety, and threaten her with fire and sword. At length, when she scarcely dared to appear abroad, Leopold went out in search of her, and placed her near the throne. There she thought herself secure: but there she was called Envy and Malice by the men, while the ladies said she was discourteous. She was on the point of abandoning the earth, when Prudence came to her aid, bound up her wild tresses, threw a flowery robe over her naked limbs, and covered with a veil the fatal mirror, which was now made to represent the similitude of things, and not the things themselves.

One of these fables—La Lucciola—has been well imitated by the very able author of Practical Education.

'The Fire-Fly.

'Night her moist wings extends o'er hill and dale,
And spreads on shadowy earth a misty veil;
The pictured forms of vivid nature fade,
And, melting, sink in undistinguished shade;

Unheard the dews descend, unseen the showers
Cool the parched earth, revive the fainting flowers.

'Beneath the friendly covert of the sky,
Winged his illumined way a glow-worm fly:
Swift as his rays advance, or swift retire,
The living meteor tracks the night with fire:
Now with instinctive art conceals, now shows,
The uncertain light which round his body glows.
In gathering crowds the simple rustics gaze,
As round and round the lucid wonder plays;
With loud acclaim, the sparkling fly prefer
To all the winged inhabitants of air;
Scorn the bright spots the peacock's plumes unfold,
And scorn the pheasant's wing bedropt with gold.

'Elate with praise, and of their homage proud,
In lofty words he thus addressed the crowd:—
"Sprung from the Gods, no mortal birth am I,
Apollo's kindred fire illumes his fly.
Yon twinkling stars, that light the throne of Jove,
Are but the fire-flies of the realms above.
With us, from heaven, descends the spark divine,
That gives the diamond diadem to shine."

'He spoke, and vanished: but the childish crew,
With eager steps, the phantom-fly pursue;
Darkling through brakes and tangled thorns they run,
Till, rising from the waves, the eastern sun,
Scattering with many a beam the fogs of night,
Flings on the rocks and hills his ruddy light.
Where now the extinguished glories of the fly?—
Shorn of their beams, on the low ground they lie:
Contrasting darkness showed his feeble ray,
Unseen, unnoticed, in the blaze of day.

'Hence, insect-tribes of vain pretenders, know
What transient fame to ignorance you owe:
Shine in the night of dulness still, but shun,
Ye fire-fly-wits, the splendor of the sun.'

Pignotti's fables are uniformly composed in that temper of philosophy which prevailed among all men of letters before the French revolution. The lion's government becomes unpopular, because the bear and the dog, who are his ministers, glut themselves, under the pretext of enforcing his orders: but the lion kills them, as soon as he discovers their wickedness. The different animals discover the advantages of domestication, and offer their services to man. Accordingly, a social compact is formed: the dog promises to protect him by night, to hunt for him, to guard his flocks; the cat engages to secure his provisions, and catch vermin: 'And what will you do?' says man to the fly.—'I?' cries the insect,—

'*Io sono un gentiluom.*'

'I am a gentleman: my ancestors have handed down to me the illustrious privilege of being idle.'

'*Non fo, non feci, e non farò mai nulla.*'

'Nothing I do, ne'er did, nor ever will.'

The grub and the snail are friends: the former becomes a butterfly, and not only disdains his old acquaintance, but advises the gardener to kill him. 'Hold thy peace,' cries the snail: 'I am content to die a snail, as I was born; but, for thy own pride, remember I knew thee a grub; and be silent!'

A few tales—*novelle*—follow the fables: the first is of a young man cured of his love, by seeing his mistress at her toilet, *making herself up* for the day. The dissection of a coquette's heart, by Addison, has furnished Pignotti with the subject of his second. Another is a contest between Love and Vanity, whose influence is the greater. A damsel approaches, and they decide the dispute by experiment. Love shows her a handsome shepherd, and shoots one of his keenest arrows. Vanity holds a looking-glass, and baffles Cupid.—The last of these tales is an old story: Some thieves, disguised like Franciscans, steal an old man's ass; and one of the rogues slips into the halter, and follows him; and, when the owner turns round, declares he had been transformed into an ass, as a punishment, by his prior. The old man believes him. After some days, he finds his ass again, and purchases him, thinking the friar had been committing a new offence, and was once more punished by transformation. Accordingly, he treats the beast with the greatest respect, expecting another metamorphosis, as long as the animal lived.—These stories are all told with an ease and simplicity, which give them a truly original value.

Among the other poems, we find a larger proportion than we had expected from Pignotti, of what he himself calls *adulatrici rime*—'adulatory verses'—verses which—

'Han la vita e la morte il giorno istesso.'

'Both life and death possess the self-same day.'

The Tomb of Shakspeare is a blank-verse poem, dedicated to Mrs. Montague, in which the various characters of his dramas pass, as in the Jubilee, in review. The poem of the greatest length in these volumes, and of the loftiest character, is upon the Death of lord Robert Manners. In this, the poet is too continually attempting to soar. Bellona appears, and the goddess Liberty, and the goddess Victory, and the Genius of Britain, and the Spirit of the British heroes: all the ingredients for making the sublime, upon the most approved receipts, are liberally employed. The subject was ill suited to Pignotti's ge-

nius: it reminded us of his own ostrich stretching up his neck, and clapping his pinions violently, but to no purpose; for he could not fly. Pignotti produces delightful melodies from the syrinx; but, when he blows the trumpet, he makes a noise.

Vol. IV. *Poesie di Lodovico Savioli, Bolognese.—Poems, by Lodovico Savioli, of Bologna.*—Savioli's *amori*—'amorets'—fill half this volume: they are upon the tritest and most worthless subjects. To Venus—to his mistress—to his mistress's chamber-maid—to his angry mistress—to his sick mistress—to his jealous mistress—to his faithless mistress—rhymes written without originality, without genius, without fancy, without feeling. In the same volume is a writer of a different character.—

Poesie di Giovanni Gherardo de Rossi, Romano.—Poems, by Giovanni Gherardo de Rossi, of Rome.—The Anacreontics of this poet appear first: they begin with this poem.

'L'Arco d'Amore.

'Prendi, mi disse Amore,
Quest' arco feritore,
Di cui ti lagni tanto.
Spezza lo pur, se vuoi;
Quando quest' arco è infranto,
Cessano i mali tuoi.
Incauto giovinetto
D'Amor l'offerta accetto,
E in cento modi e cento
Spezzar quell' arco tento:
Ma ogni forza mortale
Contro quell' arco è frale.
Cercando allor men vo
Chi diami all' uopo aita.
L'arco allo Sdegno do:
Quegli con mano ardita
Franco l'opra intraprende,
Ma intatto poi mel rende.
A Gelosia lo porto,
E coll' arida mano
L'avea colei gia torto.
Io n' esulto, ma invano,
Che forte più di pria
Mel rende Gelosia.
Volgo al Capriccio i preghi,
Che all' impresa s'accinge;
L'arco par che si pieghi
Mentre colui lo stringe;
Oh breve contentezza!
Lo piega, e non lo spezza.
Allor le Muse invoco:
Arso quell' arco indegno
Spero dal sacro fuoco
Che m' accende l'ingegno;

Ma è van che a quella esprima
I miei tormenti in rima.
Amor ritorna spesso,
E poi che l'arco vede
Intatto a me d'appresso,
Con nuovo stral mi fiede,
E con nuovo disprezzo
Grida perche nol spezzo
Così passando gli anni
Fra tristezza ed affanni,
Alfin le bianche brine
Caddero sul mio crine;
Vecchiezza che al mio fianco
Mosse il pie lento e stanco,
Vide quell' arco, rise,
E colla man tremante,
In mille parti infrante
Lo spezzo, lo divise.
Or l'empio fanciulletto
Impaziente aspetto,
Che di trionfi miei
Farlo certo vorrei:
Ma indarno, oh Dio! lo bramo,
Indarno a me lo chiamo;
Passa lunge. E, qual vento,
Dagli occhi miei si fura,
Ed or che nol pavento,
Ei più di me non cura.'

The Bow of Love.

Quoth Love to me, Dost thou complain
Of the bow that caus'd thy pain?
I give it to thy vengeance: take it;
Use thy strength and skill to break it.
Find thou means to break the bow,
Then thine ills their end shall know.
A hundred various ways I strove,
To break the fatal bow of Love.
Alas! all mortal force was weak,
The fatal bow of Love to break.
To proud Disdain at length I go,
And ask his aid to break the bow.
He freely gives the aid I ask,
And boldly undertakes the task;
But all his strength he tries in vain,
And gives me back the bow again.
To Jealousy I next repair,
That she might ease me of my care.
In her dry grasp I saw it bend,
I thought my ills had found their end:
But all her strength could do no more—
She left it stronger than before.

Then to Caprice I went, and pray'd
That he would give his friendly aid.
He crook'd it, striving with good will,
But left the bow unbroken still.
I call'd the Muses then for aid,
And on their shrine the bow I laid;
And in their sacred fire I strove
To burn the fatal bow of Love.
Alas! I sought their help in vain—
They only taught me to complain.
Soon Love returned, my fate to know;
And, when he saw the unconquered bow
Had baffled all my strength and art,
He fixed in me another dart;
And said, in mockery of my woe,
Hah! canst thou yet not break the bow?
Thus past away the wretched years,
In pain, in sorrow, and in tears,
Till Age came up, advancing slow:
He smiled when he beheld the bow;
And in his withered hand he took it,
And with his feeble arm he broke it.
At this, in triumph and in joy,
I look'd for that inhuman boy.
I call'd and call'd; but, from my eyes,
Swift as the wind, away he flies.
When I his power no longer fear'd,
He to another victim steer'd.

In some of De' Rossi's Anacreontics there is a triteness unworthy of his genius. Doris pricking her finger in gathering a rose—Galatea looking in the fountain, which was her mirror twenty years ago, and thinking the water was changed—these are old stories. *Gli Occhi e le Labbra di Fille* is the title of a very absurd poem. The eyes and the lips of Phillis dispute to which of them she is indebted for so many admirers. They quarrel upon this question, and determine to thwart each other: kind words are always counteracted by harsh looks, and inviting glances by words of anger, till Cupid reconciles them. We should have suspected this to be a Dutch Anacreontic.—Love and Folly is a neat apologue. Venus finds that Cupid is willing to dwell any where, except with Age; but, in compliance with Age's prayers, she commands Cupid to lodge with him. Cupid gives Folly his wings and his bandage and his bow, and sends him in his stead; and Age is satisfied with his guest.

De' Rossi's epigrams have considerable merit.

'Per un Ricco Cattivo Poeta.

'Le rime di Lucone
Tu celebri a ragione.

E ver che piaccion poco :
Ma como non lodar chi ha si buon cuoco ?'

On a rich but bad Poet.

Luco writes verses,
And every one praises his book.
Who would not praise Luco's verses,
When he keeps such an excellent cook ?

' Ad un cattivo Giudice di Poesia.

' Ne' versi d'Annio, che non ho mai letto,
E ver credo ogni errore, ogni defetto.
Mi domandi il perche ?—
L'udii lodar da te.'

To a bad Judge of Poetry.

I have not read his rhymes : but this I know,
They must be bad as bad can be.
' Why judge you so ?—'
' Because I hear them prais'd by thee.'

' Per un gran Signore.

' Il grande, il ricco Eglon, qui estinto giace,
Non fe' al mondo quel ben che gli dovea ;
Ma prega al cener suo riposo e pace,
Perche il male non fe' che far potea.'

On a great Man.

The rich and mighty Eglon, who lies here,
Did not do all the good he should have done ;
But let us pray that he may rest in peace,
For he did not all the harm he could have done.

' Pel Dono d'un Libro.

' E ver pel libro tuo non vuoi danaro,
Ma che tutto lo legga, Aulo, pretendi.
Aulo ! dunque lo vendi,
E lo vendi assai caro.'

On the Presentation Copy of a Book.

You take no money for your book :
But you would have me read it through.
Aulus ! indeed you sell your book,
And sell it dearly, too.

' I Libri di Damone.

' Tra i libri che Damon compra si caro,
Quello ch'è raro più sceglier tu vuoi.
Quello sara il più raro
Se uno letto da lui trovar ne puoi.'

Damon's Library.

All curious books lord Damon buys,
And buys them at the dearest price.
To find out one which he had read would be
The greatest curiosity.

The *Scherzi Poetici e Pittorici* of this author fill the fifth volume of the collection. Each poem has its correspondent sketch. The drawings have all the Italian elegance: they are more uniformly excellent than the accompanying verses; yet these are of no common merit. They are of different structures — epigrams, apologues, Anacreontics, sonnets, as best suit the subject.

Jove tells Love to wreathe flowers for the bonds of Hymen. The blind boy makes a rose-wreath, and leaves the thorns upon the stalks. Love gives the poet a watch; but it never keeps time; the hours are always too fast or too slow. Suspicion takes the bandage from the eyes of Love: he was happy when he was blind; but this makes him miserable. When his torch burns dim, Love goes to Laughter to blow it, or to Anger or Scorn; but once he went to Jealousy, and she blew out the flame. Pleasure lets Youth into her garden: he gathers all the flowers, and is then surprised to behold what a desert he has made. Some few are of more grotesque character. The poet saw Love painting one day: his own heart was upon the easel, on which Cupid was engraving Phillis's likeness with an arrow. Cupid turns farmer: he yokes doves, and ploughs with an arrow. In such a work, such conceits are not misplaced.

De' Rossi's poems fill one volume more, which contains a hundred fables. They possess more originality than the fables of Pignotti; but are, on the whole, very inferior. De' Rossi goes straight through his story, hastening to an epigrammatic application at the end. Pignotti lingers and loiters, and suspends his narrative for the sake of descriptions which make the narrative beautiful. Their principles are as different as their manner. Pignotti wrote in better times, when liberal opinions were encouraged at all the continental courts. De' Rossi has seen the sufferings of Italy, and confounds the principles of philosophy with the ravages of the French, as absurdly as French unbelievers confound the doctrines of Christianity with the follies and tricks of popery. Pignotti is a man of genius, De' Rossi only a man of talents. De' Rossi can design Cupids admirably, and write madrigals and Anacreontics. Whatever he does is fanciful; it occasions a pleasurable smile, but never excites a deeper feeling. Pignotti possessed the eye that could see Nature, and the heart that could feel her.

Vol. VII. *Poesie di Ippolito Pindemonte, Veronese.—Poems by Ippolito Pindemonte, of Verona.* — Most of these poems

have a melancholy feeling pervading them, having been written in sickness, and at a time when the author himself did not expect to recover. Enough of this appears, to excite an interest, but not too much. Pindemonte writes like one who feels and thinks upon his situation, not lamenting it. From his youth up, he loved poetry; and he tells us—*sempre a se dispiacque*—that, in his own writings, he never satisfied himself.

Our limits will not permit us to extract from the poet as much, at length, as his merits deserve. A very imperfect translation of the following stanza will show his talent for natural description.

'Come della Natura, che sospende
Ogni opra agli occhi, è la quiete augusta!
Come da un cor, che la sua voce intende
Questo silenzio universal si gusta!
Universale, se non quanto il fende
Cupo tenor di musica locusta.
E romorosi più, nella profonda
Quiete, o rio tra sassi, o al vento fronda.'

How awful Nature seems in this repose,
When her works live no longer to the sight!
And, to the heart that understands and knows
Her voice, this silence—what a deep delight!—
This universal silence, save alone
That the shrill locusts sing; and, in the night,
The leaves move louder; and, with louder moan,
The river rolls along its bed of stone.

His picture of Religion by a sick bed must not be omitted.

'Pur la nobile donna avvolta in lutto
Tenea la faccia: or che saria giuliva?
Ma d'ogni pianto era il bel volto asciutto,
Dolente si, ma qual conviensi a diva;
Tal che il duol nel suo viso, e in-un del vinto
Duolo il triunfo si vedea dipinto.'

A look of sorrow in her face she had—
For who but would have suffered sorrow here?—
Even as beseem'd a goddess to be sad,
Her countenance was sullied by no tear.
Grief gave a gloomy air; but, thro' that gloom,
A triumph might be seen, and grief was overcome.

Several of these poems were written during the author's travels, as the scenery excited poetic feelings. Mount Cenis, the lake of Geneva, the graves of Laura and of Petrarc, the Chartreuse, Ferney after the death of Voltaire, and Zurich after the death of Gessner, all gave him subjects for song. He came to England also; and, in England also, he wrote poems—not upon our Welch mountains, or our Cumberland lakes—not up-

on our illustrious dead—but a sonnet *scritto, in Bath, per madamigella Gray che danzava con somma grazia e pari modestia*, and a *canzone* to a *bellissima ed ornatissima fanciulla* in London; to whom he says that Italy can no longer blame the climate of England; for it has ceased to be dark and foggy, from the day when she first opened her starry eyes.

'Non biasmi Italia più l'Anglico cielo,
Cielo, che più non è nebbioso e scuro,
Dal di che apristi tu gli occhi stellanti.'

The longest of Pindemonte's poems is a satire upon the abuse of travelling. His lines upon what the Italian traveller will learn in England are exceedingly ridiculous, by their macaronic English.

'Saprà
Tutte di Londra le taverne, e i galli
Più bellicosi, e i corridor più ratti,
E della pugna i campion primi; insigne
Dottor di *tosti* e *thè*, di *ponchi* e *birre*,
Ed atto a sostener l'Anglica ebbrezza.'

Punch and beef-steaks have, we believe, been incorporated into all the languages of Europe; but we are pleased to find that toast and beer are likely to find a place in the next edition of Della Crusca. We have also the verb *tostare*, to toast a lady.—Whatever relates to England is amusing, in this poet. He talks of the *dukes Beckfort* and *Spencer*; is very liberal in his praises of the English poets at Florence, whom he calls the worthy countrymen of Milton; and he states signora Thrale Piozzi to be the true Minerva of Albion.

(To be continued.)

ART. III.—*Mémoires de l'Institut National des Sciences et des Arts. Sciences Mathématiques et Physiques. Tome IV.*

Memoirs of the National Institute of Sciences and Arts.

We turn to the fourth volume of the class of Moral and Political Sciences, which, as usual, opens with a brief history of its labours, extending through a term of eighteen months; *viz.* from the beginning of the year 8 (1800) to the middle of the year 9. In glancing at this part of the volume, we cannot but be struck at the mortality which has prevailed among the members of the class before us within that period. Its entire number, including foreign associates, extends only to forty-six; and of these it has lost not less than nine, being very nearly a fifth part of the whole. The volume having been so long delayed

beyond its intended period of publication, the prize-questions proposed for the years 8 and 9 have all of them been either answered, or withdrawn in consequence of no adequate answer having been received. At present, therefore, we have no prize-question whatever.

Among the labours of the class, which are not printed in its collection of Memoirs, we find noticed—

'I. An attempt of M. Mercier, to revive the Doctrine of innate Ideas,' whose manner, rather than whose matter, is spoken of with approbation.

'II. Two Memoirs from the Pen of M. Dégérando,' who, we understand, has succeeded to the seat in the Institute vacant by the death of M. Carafelli du Falga, who fell, as many of our readers may remember, in the memorable siege of Acre. These memoirs are on the fashionable subject—fashionable, we mean, in France—of pasigraphy, or universal language. Not less than four unedited and one printed memoir were presented to the Institute upon this topic last year: the printed memoir was written by M. Destuth-Tracy, and it has already fallen within our cognisance. M. Dégérando coincides with M. Tracy, in this second memoir, that pasigraphy can never become a universal language; by which, we suppose, he means that it can never be accomplished.

'III. A Memoir of M. Merlin, on the Necessity of a universal and uniform Code of Laws for the entire Republic.'—For this memoir, which was written a few years ago, there was certainly a sufficient call, since not less than from thirty to forty thousand new laws were added to the unentombed ruins of the old, perplexing the magistrates beyond all possibility of illumination. The *hope of the nation* however, it seems, has since been fulfilled—Bonaparte has been made first consul—and M. Merlin's memoir is become useless. The first consul's code, it is added, is not, nevertheless, perfect; but it *will be* the best which has ever been enjoyed by any people. 'We owe this blessing,' says the class of moral and political sciences, 'to *the hero who has compelled Europe to enjoy the sweets of tranquillity.*'

Our limits will scarcely allow us to do more than notice the rest, which consist of, IV, a Dissertation on natural Rights in political Institutions, by M. Toulongeon. V. Memoir on Ostracism, by M. Legrand-Laleu. VI. Inquiries into the Legislation of Solon, and the Government of Athens. VII. a memoir entitled Phocion, by M. de l'Isle de Sales, offering the plan of a republic which may rest itself on the passions of mankind, without arming one class against another. VIII. Analysis of the Principles of the Circulation of Wares, and of the Influence of Money upon such Circulation, by M. Veron-Forbonnais. VIII. Memoir on Elections by Ballot, by M. Danou. IX. Journey

over the Vosges, a large Chain of Mountains on the Borders of Lorraine, by M. Gregoire. X, XI, XII, XIII. These numbers consist of continuations of inquiries into the Memoirs of the Academy of Inscriptions and Belles-Lettres relative to the state of Literature in France in different æras; on the present state of the labours undertaken for a collection of the *ordonnances* of the kings of France of the third race, of which we have formerly taken some notice, both by M. Anquetil; present state of the collection of the different historians of France, of charts and diplomas, and of the *ordonnances* of the Louvre, which are superintended conjointly by MM. Pastores and Camus, and which we have also noticed in their commencement. XIV. Account of an Expedition beyond the Sea, with a Return by Land, made in 1432 and 1433, by M. Legrand d'Aussy. XV. Memoir on the Application of the System of decimal Mensuration to Hydrography and the Calculations of Navigation, by M. Fleurieu. XVI. On the geographic Knowledge of the Ancients on the southern Coasts of Arabia, by M. Gosselin. XVII. On the Extent and Population of the ancient Kingdom of Poland, and on the Increase which its Partition has alloted to Russia, Prussia, and Austria. XIX. Several memoirs of M. Dupont de Nemours, contained in a packet from him to the present class of the Institute, in the course of his voyage. M. Dupont, our readers may recollect, is one of the members of the Institute nominated, about three years ago, to undertake, in South America, a voyage useful to the progress of science: his remarks principally relate to the natural history of the country and its productions, but offer nothing that needs detain us. His memoir on Vegetables, Polypi, and Insects, might easily be conceived to have been written, had he been acquainted with it, as a burlesque upon the cupidinous system of Dr. Darwin. The last paragraph extracted from it, in the history before us, is as follows:—'We are asked if polypi be acquainted with love. I know nothing upon this point, replies he. We have never yet caught them in the exercise of the tender passions: but God is all-good, Nature is all-generous, and ourselves all-ignorant. I do not decide in any way: I am only an inquisitive child.' XX. Memoir on a new zoölogical Chart, by M. La Cépède. M. La Cépède was the friend, and is one of the few fellow-labourers of Buffon who still survive him. We are surprised that this memoir is not inserted at full length. XXI. Observations on the Sikes of India, by M. Langlès. XXII. Memoir on the larger and smaller Travels of Thevenot. XXIII. Plan of a Voyage round the World, communicated by captain Baudin, for which he is now preparing, and which is destined to promote the progress of human arts and sciences. M. Baudin was to visit those parts of the globe which are at present totally unknown; and to sail under the direct sanction of the French

government. We have yet received no details of any part of his expedition. XXII. Memoir on the Manners, Customs, and Habits, of the People of Benin, by M. Palisot Beauvois. Benin is a superstitious but hospitable kingdom of Africa, and has been visited by M. Beauvois himself. We are surprised that this memoir also has not made its appearance at length. It evinces, if we mistake not, a degree of partiality which is too common among literary as well as other societies, but than which nothing can be more adverse to the cause of science. XXIII. Continuation of the Affinity of the corporeal and mental Powers of Man, by M. Cabanis. This work we have already noticed, so far as it had advanced, in two distinct memoirs. We spoke of it with some approbation, but as far too verbose and prolix. The present class of the Institute seem to have thought the same; and hence, instead of inserting the third memoir entire, they have only referred to it in their History. Its subject is the influence of a diseased diathesis upon moral affections and ideas. XXIX. Memoir on the Gauls, by M. Anquetil. XXX. Memoir on the Peace of Westphalia, by M. de l'Isle de Sales. XXXI. On the Classification of the Books of a Library, by M. Danou. XXXII. On the Establishment of Tithes in Favour of the Clergy. XXXIII. On Pilgrimages in France, both by M. Legrand d'Aussy. XXXIV. Memoir on the *Garden* which the French Republic possesses in America, by M. Dupont. XXXV. On the Navigation and Commerce of Genoa during the Middle Ages, by M. Papon. XXXVI. Researches into the geographic Knowledge of the Ancients relative to the Persian Gulf, by M. Gosselin. This memoirist is said, in the notice here given of his researches, to have detected various errors in Dr. Vincent's very valuable Periplus of the Erythrean Sea. It would have been but fair to have stated what these errors consist of, that, in the publication of his second part—which we hope shortly to receive—the doctor might have an opportunity of correcting them, if clearly ascertained, or of defending his own positions, if unjustly accused. At present, we are left totally in the dark, and have certainly no more reason to confide in the geography of M. Gosselin than in that of our own very ingenious and learned countryman.

The volume now proceeds to historic notices of the life and death of two of the members of the Institute—M. James Antony Creuzé-Latouche, written by M. Champagne; and M. Legrand d'Aussy, by M. Levesque. Of the former, to whom our readers must be strangers, we need observe nothing more, than that the greater part of his life, and the few publications he produced, were devoted to agricultural economics: but we cannot suffer his collegue, whose name has so often occurred as a contributor in the labours of this class of the National Institute, to pass into equal oblivion. Peter John Baptist Legrand

was born at Amiens, June 3, 1737, and was surnamed d'Aussy, because his father was a native of Auxy-le-Château, in the department of Pas-de-Calais. He received his education in the college of the Jesuits at Amiens; at the age of eighteen entered into the society of his preceptors; and, a few years afterwards, had the honour of being elected to the rhetorical chair of this celebrated company at Caen. At the age of twenty-six he was thrown on the world by the dissolution of the order, and was soon employed in the elaborate work of the French Glossary, projected by Lacurne de Sainte-Palaye, and in an examination of the very rich library of the marquis de Paulmy. Nominated, in 1770, secretary in the direction of the studies of the *military school*, he found that his scholar, the celebrated Laplace, was appointed professor; and it was this scholar of Legrand who shortly afterwards had, among others, in the course of his mathematical investigations, to sit as judge over *the hero, the restorer of France*, THE PACIFICATOR AND ARBITER OF EUROPE: *le héros, le restorateur de la France*, LE PACIFICATEUR ET L'ARBITRE DE L'EUROPE. But our eulogist is not the only man who has been deceived upon this point: it is enough for him to write as a philosopher, without pretending to the spirit of prophecy. Legrand d'Aussy afterwards co-operated, under the marquis de Paulmy, and again with the count de Tressan, in the *Bibliothèque des Romans;* after which he became still deeper engaged in collecting, translating, extracting, and commenting upon the *fabliaux*, or tales of the old French poets of the twelfth and thirteenth centuries. In 1782 he published, in three volumes, octavo, his *Histoire de la Vie privée des Français;* and in 1788 his far more celebrated Tour to Auvergne, which province he visited the preceding year, at the entreaty of his Jesuit brother Peter Theodore Lewis Augustin, who was then prior of the abbey of Saint André, in the town of Clermont. This Tour he first published in one volume, octavo; but he afterwards enlarged and republished it, in 1795, in three volumes of the same size. His contributions to the Institute were numerous, and, for the most part, possessed of merit: we have progressively paid him the tribute of applause which we apprehended to have been his due. For some years past, he had conceived the plan of a complete history of French poetry, and had even begun to carry it into execution; but he stood in need of all the treasures of the national library. Fortunately for him, he was nominated, in the year 4 (1796), conservator of the French MSS. of this library; and he now not only renewed his intention, but enlarged his scheme: he included in it the history of the French tongue; that of literature in all its extent, and all its various ramifications; as well as that of science, of arts, and their utility in different applications—a monument too vast for the life and

powers of an individual to be able to construct. He had, nevertheless, accomplished much in many parts of his comprehensive design; but, after a slight indisposition, which produced no kind of uneasiness, he died suddenly, 15th Frimaire, year 9, (1801). He was, upon the whole, a retired and taciturn scholar. 'His life,' observes our biographer, 'like that of most other men of letters, may be comprised in two lines. What were his places of resort?—The libraries. Among whom did he live?—His books. What did he ever produce?—Books. What did he ever say?—That which appears in his books.'

The list of printed works presented to the class within the period comprised by the volume itself, succeeds: they consist of about a hundred and thirty—all in French, at least with scarcely an exception, and for the most part but of trivial value.—We pass to the Memoirs, in their order.

'I. Memoir relative to the Island of Madagascar, by M. Lescallier, associate-member.'—Upon this island the French have a small settlement, which has sometimes been entirely neglected by the government, and sometimes become an object of attention and favour. It is the endeavour of M. Lescallier, in the memoir before us, to re-awaken the vigilance of his countrymen to this island, and to represent it as a spot of much promise for a select colonisation. The soil he asserts to be fertile, and the climate propitious; while considerable riches might be easily acquired by the institution of a whale-fishery. Almost every preceding voyager, however, has given a different description of the country, which is commonly supposed to be so extremely marshy and insalubrious, as to defy the most pertinacious efforts of man to drain it, and render it healthy.—Yet the observations of M. Lescallier are entitled to attention, as proceeding from a voyager who has visited, and repeatedly traversed, the scene he describes. He was charged by the French government with a mission, which authorised him to visit all the French Oriental possessions, and concur in regulating and organising all their Indian factories and islands; and, in consequence of this authority, he directed his course to Madagascar, and landed at Foul-Point in the month of October 1792. In ascending the interior of the country, he takes an opportunity of contradicting an assertion of his countryman, the abbé Raynal, who has declared that the women alone here are employed in all occupations of labour; and of denying the existence either of Kimos or Albinos, the former being asserted to be a race of dwarfs inhabiting the middle region of the island, seldom exceeding three feet four inches in height, and the latter a species of white negroes. Both these phænomena have been long advanced by prior travelers, and have been alternately credited and disbelieved. Their existence, if we recollect aright, was first of all positively asserted by Commer-

son: it was afterwards confirmed by Moldave; and, having been for a considerable period laughed at and rejected, was about ten years since again brought forward, and maintained as an undeniable fact by another of our author's countrymen, the abbé de Rochon, who pretended to testify the fact, as an eye-witness, for many years. We cannot enter into the dispute, but must incline to the negation before us.

'II. Fragments of a Voyage to India, by the same.'—About the period just mentioned, our memoirist prosecuted his voyage to Pondicherry; and he gives, in the paper before us, an account of the appearances that principally impressed him during his residence in that quarter. He first describes a superb pagoda at Chalembra, about three leagues to the south of Porto-Novo, in the delineation of which we need not follow him. He next gives an account of a religious festival in the vicinity of the pagoda, in which the *balindères*, or dancing girls, attached to the hierarchy, perform the principal part. These are selected indiscriminately from every cast of Hindus, and are consequently of every variety of colour: and armed with knives, daggers, and other pointed instruments, and surrounded with a most vociferous band of music, consisting of drums, tambourins, flutes, and trumpets, in the violent gesticulations of their ballets, they seem to rival the orgies of the Grecian *Dea Mater*, and the dithyrambic clamour of the Phrygian Curetes, from whom it is probable that the present enthusiastic ceremony has descended. The paper concludes with a short account of the representation of Indian comedies, and the holy feast of purification in the waters of the Ganges, an annual institution celebrated on the day of the full moon, in the month of March. 'Fifty thousand souls, at least,' says M. Lescallier, 'were assembled together at this place (Tircanijeh, about two leagues to the west of Pondicherry): each bank of the river was covered to a very great distance in the vicinity of the temple, which is advantageously situated upon a small eminence near the right bank, named Ariancoupa. It affords all the appearance of a fair of flying shops, fruit-stalls, provision-stands, and other objects. Dancers, jugglers, pick-pockets, quacks, faquirs, performers of religious farces, beggars, all exert themselves to the utmost to draw forth the attention and the money of spectators and travellers. We beheld a number of little images of Indian gods, which the faquirs offered for sale to the devotion of the faithful; men who scarred their hands, their arms, their thighs, their chests, and various other parts of the body alternately with torches and burning coals, all dancing with forced and contorted gesticulations; others we saw walking on fire, and others still with their backs stretched on bundles of thorn; though I clearly perceived that these last had defended their backs by covering the thorns immediately in

contact with themselves with linen-cloth; and perhaps the very thorns of this part of the bundle were broken off and removed. Petitions were, in the mean time, perpetually chaunted, the burden of whose song consisted in the demand of money. Among all these faquirs, the man who most astonished me was one who stood upon his head, with his feet in the air, and his legs extended in the form of the letter Y, still chaunting his petitions in this laborious and unnatural posture, with his throat wide open. I was more distressed at beholding him in this attitude, than he was in preserving it. The chief and essential object, however, of this assemblage of the followers of Bramah, is to plunge and purify themselves in the waters of the Ganges. In this river they bathe to a vast extent, united in distinct groups or families, with which a sight of the opposite banks, equally covered with the promiscuous multitude, forms a prospect infinitely varied, animated, and picturesque.'

'III. Apology for Las-Casas, Bishop of Chiapa, by M. Gregoire.' The benevolent patron and protector of the Indians of Spanish America has too generally been conceived to have been the promoter, and by many others even the inventor, of the commerce in African slaves; and it is the object of M. Gregoire, in the memoir before us, to free him from so opprobrious a charge, and so contradictory a conduct. That Las Casas was not the father of this most infamous system is sufficiently apparent from the annals of Ortez de Zaniga, which verify the existence of companies formed at Lagos for the express purpose of prosecuting this lucrative traffic at Senegal and Cape Verd many years prior to the birth of Las Casas, which occurred in 1474; and the declaration of the same writer, that the Portuguese were the first who introduced it during the reign of the infant Don Henry; and that the earliest of these predatory expeditions of the Portuguese was headed by Alonzo Gonzales, who stole many of the natives of Guinea from their own coasts, and sold them to the Spaniards. And that Las Casas did not introduce the traffic into America, is clear, from the circumstance that all the best informed historians of Hispaniola, or St. Domingo as it is now called, Hargrave, Anderson, and Charlevoix, admit the existence of negro slaves in that island as early as 1508 and 1503, and Herrera as early as 1498, while not an individual of the accusers of Las Casas pretends that his project for the substitution of negroes was communicated prior to 1517. Having effectually cleared Las Casas from the imputation of having been the *founder* of negro slavery, either generally or locally, M. Gregoire next investigates the arguments or facts by which he is said to have *promoted* it: and here he first impeaches the general credibility of Herrera, from whom every later historian, from Charlevoix to Robertson, has copied the accusation; and then asserts, that even the accusation itself has been commonly

advanced with far more strength of colouring in the different copies, than in the original. He next inquires, Is it not extraordinary that so detestable a charge should remain altogether unnoticed by every one of the various other authors, who at different epochs have written the life of Las Casas in a more or less detailed form? He observes, that the contemporaries of Las Casas, both friends and enemies, John de Solorzano, Davilla Padilla, Solis, Sandoval, Laet, and Torquemada, speak equally of him in their diverse histories and descriptions, but without accusing him; that Gamilla, Thomas Gage, Alvarez Nunez, and many other authors contemporary with Herrera, speak of negroes, but without ever coupling them with Las Casas: and that, more especially in the celebrated conference, which, by order of the Spanish government, was held at Valladolid, in 1550, between Las Casas and his antagonist Sepulveda, in which the latter contended that it was just to make war against the Indians, in order to convert them; and the former refuted him upon the principles of toleration and liberty in favour of the entire race of mankind—principles which had obtained the solemn approbation of the universities of Alcala and Salamanca—Sepulveda, who was well versed in polemic warfare, would never have suffered such an inconsequent and contradictory defence to have fallen from the lips of Las Casas, without exposing its absurdity, if, in reality, he had ever expressed a wish to enslave the negroes, and submit them to the Americans. Finally, our memoirist proceeds to prove, that the doctrine and practice attributed to that benevolent ecclesiastic are expressly contradictory to his own writings. Here, however, we perceive some deficiency: it is true, the worthy prelate expresses the most vehement indignation against enslaving his favourite *American Indians*, and interdicts, from communion with his own church, every one who engaged in so unchristian a traffic; but he is silent upon the subject of *African negroes*; and we have much reason for believing that he distinguished between *blacks* and *whites*, and did not oppose the slave trade in the former, although he strenuously resisted it in the latter. Upon the whole, however, this, so far as it extends, is an able and a learned vindication of Las Casas from an imputation which has unjustly attached to his character.

'IV. Memoir on the Code of Alaric, by M. Bouchard.'—The barbarous nations which, issuing from the west, dismembered the Roman empire, as, for example, the Burgundians, the Ostrogoths, the Visigoths, the Franks, and the Lombards, so far exhibited moderation in the midst of their conquests, as that they suffered the subjected Romans to be governed by the Roman law. It was hence that Alaric II, king of the Visigoths, son of Enric, and successor to him in the year

489 of the Christian æra, ordained, in 506, the arrangement of a code of Roman laws in favour of such Romans as had become his subjects. This compilation was an abridgement of the Gregorian, the Hermogenian, and Theodosian codes, of the institutes of Caius, the decisions of Paul, and the replies of Passianus. The code of Alaric, sometimes denominated *Corpus Theodosianum*, sometimes *Lex Romana*, and sometimes *Breviarium Aniani*, continued in use till the reign of Chindovind, who proscribed it by an express constitutional act in the seventh century. The object of M. Bouchard is to prove, first, that Anianus, whose breviary this celebrated code is occasionally denominated, by no means composed any part of it; and that, instead of having been the compiler, he was nothing more than the licentiate or superintendant of the copies that were made from the original work. In corroboration of which idea, he quotes, at some length, from the prolegomena of Jacobus Godfrey, who asserts, on the contrary, that this famous compilation was the work of count Gojaric—an idea, nevertheless, that our author opposes, as pointedly as the surmise that it was produced by Anianus. Leaving it, however, altogether uncertain by whom the work was edited, M. Bouchard proceeds to a more particular consideration of the various writings of which it consisted, the names of whose authors are sufficiently specificated in the compilation itself. Thus, at its very commencement, and before the *commonitorium*, we meet with the following assertion:—'In hoc opere continentur leges, sive species juris de Theodosiano et *diversis libris* selectæ;' and, as a general clue to the expression *diversis libris*, we meet with the following title to the first law in the code:—'De responsis prudentum. Ex Gregoriano, Hermogeniano, Caio, Papiano, et Paulo, quæ necessaria causis præsentium temporum videbantur elegimus.' Of the civilians here enumerated, Papianus and Paulus were appointed contemporary judges under the emperors Septimus Severus and Antoninus Caracalla. Of the two, Paulus appears to have been in higher repute, or at least in higher favour, having, in most cases of controverted opinion, carried the point against his collegue. Gregorius or Gregorianus—for his name is written both ways—was contemporary with Constantine, and in his code collected the constitutions of the preceding emperors, from the time of Adrian. Shortly after the code of Gregorius appeared that of Hermogenianus, whose date is uncertain, but who is placed by our present memoirist, with much probability of truth, under Constantine, and the princes his sons: his code exhibits marks of particular attention to the constitutions of Dioclesian and his collegues, in investigating which, he appears to have been more minute than Gregorius. The civilian Caius or Gaius is said to have flou-

rished in the reign of Adrian; and it is well known that Theodosius compiled his code in the year 435 of the Christian æra.

We now proceed to vol. IV. of Physical and Mathematical Sciences—a volume which will not rank very high among the scientific publications of the learned societies; and, as we have already had occasion to remark, we regret the loss of many distinguished authors. We think, however, that, on the whole, the work improves: but much further improvement is wanting, before the 'Institute' can rival the 'Academy.'

The first subject, as usual, is the prizes: the proposal, in the former volume, has obtained no success, though the inquiry was a valuable one; *viz.* An anatomical Comparison of the Liver in different Animals. It is now, therefore, superseded by another; *viz.* 'The Cause and the Appearances of the Torpor of Animals during Winter.' A list of the memoirs which merit publication among the labours of learned foreigners, is next added; and it is followed by the machines, inventions, &c. approved by the class, and a catalogue of the works presented to it in the years 7 and 8. An observation, communicated by C. Aurejac, we must add in the original tongue.

'Une petite fille de quatre ans, qui depuis dix mois éprouve périodiquement l'écoulement menstruel, comme l'éprouveroit une fille arrivée à l'age de puberté, tant pour la quantité que pour la qualité.'

The lives styled 'Notices historiques' are those of MM. Heritier, Gilbert, and Darcet, by M. Cuvier; and of J. C. Borda, by M. Lefevre Gineau. On these we cannot enlarge.

The first memoir is entitled, 'Monography* of the Genus Tilia, the Linden Tree.'—Linnæus was acquainted only with the European and American tilia: Miller divided the latter into two species—the American, described by Linnæus, and the Carolinian, described by Catesby. The author of this memoir, M. Ventenat, the able editor of *Jussieu's Systême Végétale*, has extended our views, and given a very clear and particular account of the different species of tilia, illustrated with plates. The tilia Europæa, with naked petals, is divided into two species—the 'T. microphyll*a*,' and 'T. Platyphyll*os*.' They certainly resemble each other greatly; yet perhaps merit the distinction they have received by the separation. The tiliæ of America are the T. glabra, Americana L., the T. pubescens Caroliniana of Miller, and the T. rotundifolia, the alba of Aiton. This last species is newer, and very particularly described. A judicious account of the appearance, and the uses to which the linden-tree is applied, are subjoined.

---

* The word 'monography' is not common in English. The author, whose attention is confined to one genus, is termed a 'monographist;' and his work is of course styled 'Monography.' Among botanists, the term is generally understood.

'II. An Enquiry into the Integration of partial differential Equations, and of the Vibration of Surfaces, by M. Biot.'—This memoir is very extensive and recondite: it admits not of analysis: but the object of the second part, the vibration of surfaces, may require explanation. It relates to sounds like those of a drum; and our author confirms the doctrine of Euler, who considers the drum as composed of strings crossing each other at right angles. Having ascertained the nature of their vibrations, he lessens the distance indefinitely, to attain the end proposed. This, however, is but a partial view of the question; and the vibration of musical glasses, and of the trumpet, will require a more varied and extensive research, which neither Euler nor the present author has sufficiently engaged in.

'III. Memoir on the Analysis of human urinary Calculi, and on the different Substances of which they are composed, by MM. Fourcroy and Vauquelin.'—We have often had occasion to notice the subject, and in part the contents, of the memoir before us, but in the more concise form of an abstract. It was, till of late, supposed, even by the best chemists, that urinary calculi consisted only of phosphat of lime, and of uric acid; perhaps also of animal matter. To these ingredients the acuteness of the present authors soon enabled them to add an ammoniaco-magnesian phosphat, which forms a large part of the bulk of the enormous calculi, which scarcely admit of being extracted. This salt is sometimes unadulterated; sometimes mixed with either or both of the other ingredients. The mulberry-form calculi also afforded a singular ingredient, whose existence in human urinary calculi had been denied; *viz.* lime, generally combined with the oxalic acid; and this, with animal matter, appeared to form their chief substance. The source of this acid leads our authors to some inquiries, whether it may be taken in with the food, or be generated in the system. If it exist in the urine, it will decompose the phosphat of lime, and form a more solid calculus. It appears, however, exclusively in the bladder; for the renal calculi consist always of uric acid; and it would merit an inquiry, whether the uric may not be a peculiar form of the oxalic.

In the seventy-fourth calculus, which our authors analysed, they found another unsuspected substance; *viz.* a very fine flinty earth, coloured with animal matter, and mixed with some particles of phosphat of lime. The flint was found of a yellow grey or a yellow brown colour, covering a moriform nucleus, and surmounted with laminæ of the usual nature.—The animal matter, in the writer's opinion, is a peculiar substance, but can by no means be considered as the cement, since its quantity is too inconsiderable, and the crystalline form of the ammoniaco-magnesian phosphat is what it would assume without the animal matter. Our author's observations on the latter substance, in other calculi, we shall transcribe.

'Our opinion of the existence of the animal matter in the mulberry-form calculi is different. Our experiments are not yet sufficiently advanced; but we have already found that it is by no means the same as in those calculi which consist of the earthy phosphats. It is in a larger proportion, constituting about one seventh of the whole; is not, as in the latter, analogous to albumen or jelly, but approaches rather to a peculiar animal extract hitherto little known, but which we have discovered in the urine, as we shall soon show. The animal matter of the mulberry calculi is brown, flocculent, granulated, deliquescent, affording the smell of garlick when burning. We have already discovered that this highly animalised substance contributes to give a form to the solid *eburnean* (ivory-like) consistence of the moriform calculi, since, on solution in weak muriatic acid, its fragments leave in the fluid a soft brownish substance, preserving the original figure, though so soft as to yield to the pressure of the fingers.'

Water is often a copious ingredient in common calculi, amounting to a third of the weight. The memoir concludes by reflexions the most consoling and best founded, *viz.* that the nature of all these concretions is such as to admit of their solution by substances which may be injected into the bladder without injury; and M. Fourcroy adds such remarks as will lead to the most probable conjecture respecting the nature of the calculus, and, of course, the choice of the injection. These remarks, however, can only be read with advantage in the memoir itself.

We must step forward to the continuation of this subject in the latter part of the volume, where we find two memoirs 'on the chemical and medical History of the human Urine, containing some new Facts respecting its Analysis and spontaneous Change,' by the same authors.

In the first of these memoirs, M. Fourcroy is, as usual, diffuse and wordy; yet his remarks are valuable and important. The paper contains an account of the human urine, and its constituent parts, as obtained by spontaneous decomposition, and explains the successive evolution of the different substances. The proportion of ammonia continues to increase without limits; the uncombined phosphoric acid is saturated with it; and the proportion of ammoniacal phosphat augments, with which the phosphat of magnesia combines, forming the triple salt before mentioned, whose crystals are prismatic. The uric acid is checked in its separate precipitation, and combined with the ammonia, which is precipitated with the earthy phosphats. The acetous and benzoic acids find the same alkali, so that they never appear separate. The muriat of soda, in the urine, unites with the colouring matter, so that this decomposition

may be checked by previously saturating the urine with this salt: its crystals are octoëdral, and those of the muriat of ammonia, cubic. The carbonat of ammonia is produced so rapidly, that putrid urine effervesces with acids, and gives out this salt on the slightest heat—a property which makes it so useful to various manufacturers.

'There are, however, some circumstances where the spontaneous changes of the urine do not present the same or all the appearances that we have described. Frequently, in the same person, and in a state of health nearly uniform, but undoubtedly with a change of functions not yet properly ascertained, the urine, instead of being covered with a healthy pellicle, and exhaling a violent ammoniacal smell, is, in about five or six days, overspread with a mouldiness, after depositing the red crystals of the uric acid, and a whitish cloud. The green and white mould vegetates, and increases for twenty days. Under the pellicle which it covers, and by the side where it touches the urine, we find a quantity of white prismatic crystals of ammoniacal phosphat of magnesia. The fluid does not contain any uncombined carbonat of ammonia; but, on the contrary, we find some traces of acid: it admits of the separation of a precipitate, on adding fixed alkalis during its evaporation, and exhales nearly the same odour as fresh urine. When inspissated, the muriatic acid discovers the benzoic acid, and gives an acetous smell. The nitrous acid produces white pearl-coloured crystals, like unchanged fresh urine.'

'This property, of strongly alkalising in one case, and with difficulty in another, depends undoubtedly on a different proportion of the ingredients in the urine, since the latter are always the same, at least in health. We shall show that the peculiar and distinguishing matter of the urine ferments slowly and with difficulty, and requires a mucous animal substance, which must be first decomposed, as a ferment. When the urine proceeded slowly to its alkaline state, it appeared owing to a deficiency in this fermenting substance, or to its being in a smaller proportion. In this case, we do not see the mucous filaments separate, as in strongly alkalising urine.'

In the following memoir, our authors examine, with all the resources of modern chemistry, the peculiar matter which distinguishes urine from every other fluid; the 'soapy,' 'oily,' 'extractive,' 'animal,' matter found in this excrementitious fluid. M. Fourcroy mistakes, when he observes that Boerhaave alone considered it as excrementitious and injurious. The same idea has been maintained by Dr. Cullen, and other modern physiologists, though probably subject to some exceptions, as we shall soon have occasion to point out. Our author's very mi-

nute examination we cannot follow particularly, but shall offer the outlines as concisely as we can.

It crystallises in a flaky shining mass, composed of yellowish flakes compacted in the centre, or of particles in close union. The colour, in the deliquescent parts, is constantly brown; and it separates rapidly from urine when cold, after a hasty evaporation, or from alcohol in which it had been dissolved, and equally evaporated when cold. The smell is that of urine and garlick, insupportably fœtid, and soon producing faintness; the taste poignant and sharp; it sticks to the vessels that contain it, and becomes so hard as to be cut with difficulty. It strongly attracts water; and, when mixed with mucous matter, is highly fermentable. This fermentation is, as we have said, the source of the ammonia, the putrefaction of the urine, its peculiar smell, &c. Of 288 parts of the *urée*—for that is the title of this oily extractive matter in our author's memoir—the foreign matters amount to seventy-one. Of the remaining 217 parts of pure *urée*, 200 are changed into carbonat of ammonia, ten are separated in the form of carbonated hydrogen gas, and seven become charcoal. When reduced to elements, these 217 parts of *urée* really contain 85.2 of oxygen, 69.4 of azote, 32.2 of carbon, 30.2 of hydrogen. If we consider that a portion of the oxygen is employed in the formation of the water, the azote will be found the predominant principle.

From this quantity of azote, our author considers the urinary secretion as designed to separate the superabundant azote, as the lungs separate the superabundant oxygen, and the liver the superfluous hydrogen. Yet there certainly are cases in which the urinary discharge has been suspended for days and weeks, with little or no assistance from any vicarious evacuation, where even the perspiration has been scarcely or slightly urinous. On the other hand, however, the urine has been sometimes copious, without the discharge of the *urée*, while the most troublesome symptoms of irritation have supervened, to be removed only by the return of the peculiar smell and colour. On the whole, the author seems to rest too strongly on the separation of this matter, and to represent what is generally necessary, as indispensable. His memoirs are, in few words, highly interesting both to the pathologist and the chemist. We must now return to the others in their order.

'IV. M. Portal's Description of the Intercostal Nerve in the human Body' is an admirable supplement to the labours of MM. Mechel and Walter, leaving us scarcely any thing to lament as unknown. The whole, however, is strictly anatomical; and of what our author has added to former observations, as well as some little errors which he has corrected, we cannot give a very intelligible abstract. We may add, that this is a

scyon of the old stock; for the present memoir was designed for the last volume of the Memoirs of the Academy, *année* 1790.

'V. Memoir on a new Genus of the Family of Palms (Areng saccharata), by M. Labillardière.'—Our author is already known to us, by an account of a voyage undertaken to investigate the fate of the unfortunate La Pérouse. This palm occurs in the Molucca Islands, and is the saguerus of Rumphius. His description is full: but we cannot abridge it; and no essential character is annexed. The genus with which it is most closely connected is the borassus. The natives procure sugar from it, by piercing the trunk just below the divarication of the leaves, or by cutting off the upper part at the same spot. The sugar, however, is very dark and impure. The long black filaments, which come from the base of the leaflets, are employed in making cordage, brooms, &c. The leaves are used to cover the huts, to wrap up and secure the white dammara—a resin, of which the natives make excellent torches, &c. The sugar appears to be discharged in considerable quantities.

'VI. Memoir on the Prisms found in the horizontal Strata of Plaster or Marle in the Neighbourhood of Paris, and their Analogy with Basaltic Prisms, by M. Desmarest.'—As the conclusion of the memoir, with the plates, will be published in the fifth volume, we shall be more concise in our account of the present article. Our author, who is a mineralogist of the old school, attributed the prismatic form of basaltes to the retraction of lava cooled slowly. Yet, as this idea was not restricted so exactly to bodies passing from a liquid to a solid state when the fluidity was owing to fusion, the occurrence of these prisms, in the alluvial strata here described, supports, in his opinion, the former idea. Our conclusion is very different; and the discovery of the prisms seems to add weight to the opinions of the best naturalists, who, since the time of Bergman, have endeavoured to show that basaltes are not volcanic productions. We mean, however, to examine the subject more at length, when we receive the conclusion.

'VII. Memoir on the solstitial Distance of the Sun at the Zenith, in the Tropic of Cancer, in the Years 1796 and 1797, as well as on the secular Diminution of the Obliquity of the Ecliptic, by M. Duc la Chapelle.'—In the years mentioned, the distance of the sun from the zenith has increased 14′ 4″, from the year 1750; in other words, the obliquity of the ecliptic has diminished in the same proportion. The secular diminution will consequently amount to 31′ 3″. The distance of the two periods is not, however, sufficient to establish a general rule, though the diminution certainly exists to nearly this amount. The effect is probably owing to the attractions of Jupiter and Venus.

'VIII. Observation of the Summer Solstice of the Year 1801, made at Montauban, with the Sextant of the Abbé de la Caille, by M. Duc la Chapelle.'—The apparent obliquity of the ecliptic seemed to be 23° 28′ 9″.

'IX. Memoir on the Differences of the Milk of the same milking, divided into several different Portions, by M. Parmentier.'—It is singular that our author, who has engaged so fully in the analysis of milk, should have remained ignorant of a fact so generally known. Every dairy-maid reserves the last milk (the strokings) for her favourite. The cause of the more serous nature of the first milking he has not satisfactorily explained, though a problem not peculiarly difficult. Every secreted fluid seems to be thickened, not in the ducts, but in the glands, or some appended follicle. The excretory ducts are first filled, but the secreted fluid remains in them with little change: the rest is thickened in their respective reservoirs, and poured out in a richer state: the final cause is sufficiently obvious. Our author's short table of the comparative richness of different milks, we shall transcribe.

'The proportion of butter, &c. in the milks of different animals, is in the following order, beginning with the animal in which it is most copious—sheep, cows, goats, women, asses, mares; of cheese, goats, sheep, cows, asses, women, mares; of essential salt, women, asses, mares, cows, goats, sheep; of serum, asses, women, mares, cows, goats, and sheep.'

Our author's observations on the consequences to be drawn from this fact are of more importance.

'It is highly unfair, for instance, to bring the same ass every morning successively to different people, as the first may have too serous a milk, the last an aliment too heavy. It may be managed with a relation to the different states of the patient, under the direction of the physician. The arrangements of the dairy, which this method might suggest, are sufficiently obvious. The milk, drawn at different periods, may be separated for different uses; or, during the sucking of the calves, the young ones may be allowed to suck for a time, after having been kept separate, and the remainder might then be drawn for the dairy.'

M. Parmentier seems, however, not to be aware that the cow can occasionally withhold her milk, and that driving away the calf will probably induce her to do so.

'X. Meteorological Observations made at Montmorenci, near Paris, in the Year 5 (1797), by M. L. Cotte.'—The heat was from 26° 4′ to −8° 0′; the mean 8° 4′. The thermometer employed is said to be the mercurial one of the Academy, probably Réaumur's. The mean heat will then be about 50 of Fah-

renheit. The barometer was from 28 inches 5.47 lines to 27 inches 0.57 lines; the mean 27 inches 10 lines. The declination of the needle was from 22° 15′ to 19° 57′. There were only ninety-four fine days, and 139 rainy: the predominant winds, north and south-west; temperature, cold and moist: the quantity of rain, 26 inches 6.8 lines.

'XI. A mean Year concluded from meteorological Observations made at Paris from 1763 to 1781, and from 1783 to 1796, a period of thirty-three years, by M. Messier; and, at Montmorenci, for twenty-nine years, *viz.* from 1768 to 1796, by M. Cotte.'—The mean of the greatest heats, in this extensive period, was, at Paris, 25° 5′, at Montmorenci, 23° 2′; the mean of the least, −6° 1′ and −7° 3′: the mean of the whole, 9° 1′ and 8° 3′ respectively. The mean of the greatest heights of the barometer in this period was 28 inches 6.4 lines, and 28 inches 3.7 lines at the respective places; of the least, 27 inches 2.6 lines and 27 inches 0.10 lines. The mean elevation at Paris and Montmorenci 28 inches 0.4 lines, and 27 inches 10.2 lines. The quantity of rain 20 inches 2.4 lines, and 23 inches 5.9 lines. The average of the rainy days at Paris were 155, and at Montmorenci 145.

'XII. Observations on Charcoal and on carbonated hydrogenous Gases, by M. Berthollet.'

'XIII. Additions to the Observations on Charcoal and carbonated Hydrogens, by the same.'

'XIV. Second Addition to the Observations on the same Subject, by the same.'

These papers are very important, in a chemical view. The nature of charcoal has been the subject of considerable controversy. Our author supposed that it was compounded of carbon and hydrogen; and, in the reduction of oxyd of zinc, as well as the other oxyds, which require considerable heat, the hydrogen, with the oxygen, formed water instead of carbonic acid. This opinion has occasioned some dispute, which would detain us too long to investigate. In the present article, M. Berthollet considers the inquiries of Lavoisier, respecting the composition of carbonic acid; the proofs of the existence of water in this acid, offered by Monge; the experiments of Guyton on the diamond; the analysis of the gas separated from charcoal by heat; the olefiant gas; the gas separated from alcohol, oil, sugar, and charcoal, by the decomposition of water; the gas separated by the means of oxyd of zinc and carbonated barytes. To follow the author minutely in this discussion, would be impossible, so that we shall only notice generally the result of his inquiries. Charcoal he finds really to consist of hydrogen and carbon, with a little oxygen. These ingredients form water and carbonic acid, sometimes a particular species of inflammable gas. Of the latter, however,

there are two species, one containing the two former ingredients only, the other the whole number. Of the first kind is the olefiant gas, that separated from alcohol and oil, probably also that which arises from the decomposition of water by charcoal. To the second kind belongs the gas drawn from charcoal by the action of heat; that formed in consequence of the detonation of the oily and olefiant gases with a small proportion of oxygen; the gas drawn from sugar; those obtained by means of the metallic oxyds and charcoal, and of the carbonat of barytes and charcoal.

In the additions, our author adverts to the experiments of Mr. Cruickshank, in his opposition to the phlogistic theory, as supported by Dr. Priestley, and points out the principal difference in the results of their respective trials. The second addition relates to some experiments of M. Hassenfratz, in opposition to those of our author himself, which he repeated with very different results.

'XV. A Journal of the Increase and Diminution of the River in Paris, observed at the Bridge de Tournelle in the Year 5 (1797), by M. Cousin.'—This memoir is of local importance only. The lowest ebb, from which the calculation was made, occurred in 1719, though, in 1767, it is said to have been ten inches lower. The mean state is three feet nine inches; and, in 1658, it was twenty-five feet four inches. In 1719 it was at the zero of the scale, which amounts to twenty-four feet.

'XVI. Inquiries into the greatest Heats which have occurred at Paris from 1682 to 1794, by J. D. Cassini.'—This is also a scyon of the old stock, and a most respectable one. The *infamous* directory of 1793—for the execrations of philosophers will follow them in every æra, as those of the literati follow the caliph Omar—who dissolved the Academy, prevented its publication. The meteorological remarks are truly valuable, and deserve great attention. We can, in this place, only mention the facts. The two great questions are, What year, since that of 1682, has it been most hot during the summer? 2dly, In what year has the heat, on the whole, been most considerable? Our author fixes his terms in the following manner:—When the mercury is from 18° to 20° of Réaumur (about 75° of Fahrenheit — the summer heat on his scale), it is accounted *hot;* at 24° and 25° (about 87°) it is *very* hot; but at 30° (about 100° of Fahrenheit) *intensely* so. In this country the heat rarely amounts to 82°, except when the mercury is suspiciously elevated by the direct or reflected rays of the sun. It is singular that from these tables, during this long period of eighty-two years—for there was, at different æras, an interruption of thirty years—in no one were there three months of heat: in ten only did the hot days exceed sixty in number. The mean

number of hot days was about thirty. The years 1701 and 1704 had each nine days of extraordinary heat; those of 1686, 1691, and 1705, had each five days; 1793, six days. Since 1709, the heats have been much less frequent: which supports Dr. Herschel's system; but, in general, the coldest winters have not been followed by the hottest summers, though it has sometimes happened. The summer of 1701 was, on the whole, the warmest. With respect to the second question, In what years has the heat, on the whole, been most considerable? from the tables it appears that 1682 has exceeded all the others, and that the next was 1793.

'XVII. A Memoir occasioned by a Work presented by Lieut. Maignon, respecting theoretic and practical Explanations of a trigonometric Chart for reducing the apparent Distance of the Moon from the Sun, or a Star, at a true Distance, and for resolving other Questions of Navigation, by M. l'Eveque.'—This is an admirable memoir on many nautical subjects; but, did not our limits compel us to be concise, we should find it very difficult to give any adequate abridgement of it.

'XVIII. Observations on the greatest Heats, the Drought, and the Diminution of the Waters of the Seine, at Paris, during the Months of July and August of the Year 1793, compared with the preceding Years, since 1753; 2dly, on the direct Heat of the Rays of the Sun in 1793, and on the Heat of Water exposed to the Sun in a Glass Bottle in the same Year.' —The waters of the Seine, in August, were more than five inches below the standard of 1719. The hottest days raised the mercury above 104° of Fahrenheit, though the wind was occasionally, and indeed at the time of this extreme heat, at north-east: most commonly, however, it was in the western quarter. The barometer was stationary *about* twenty-eight inches. The drought of the year 1778 seems to have been more considerable, and the storms much more violent. The heat of 1705 was peculiarly violent at Montpellier. The particular facts should be examined in the tables; but, on the whole, this article will be found peculiarly rich in observations of considerable importance in meteorology.

'XIX. A new Method of determining the Inclination of the magnetic Needle, by M. Coulomb.'—This valuable article is incapable of abridgement. It is the last of a volume of peculiar interest; but we cannot help remarking, with a sigh, that much of the value is of an earlier date, and really belongs to the Academy, from whose archives some of the best papers have been taken.—With this memoir the volume closes.

ART. IV.—*Histoire Naturelle des Poissons.*

Natural History of Fishes. Vols. III. and IV. *(Continued from Vol. XXXIV, New Arr. p. 537.)*

OUR author's volumes, as he approaches the conclusion of the work, follow slowly. The fourth we have some time since received; but the fifth, and last, though long promised, has not yet appeared—a delay the more severely felt, as the Index will be a very important part of the whole. We closed our review of the third volume at the end of the genus macropodus, the seventeen genera, which follow, consisting of more than two hundred species, being so closely connected, that it was necessary to notice them, as far as we could, in the same article. Of these, however, twelve are in the fourth volume, not at that time published.

We have remarked, that even Bloch has not been correct in this part of the system, though he has advanced much further than his predecessors. M. La Cépède, with more advantages, seems still to err; and so closely are the genera connected, that the last species of one, and the first of another, may often, without much confusion, change places. Error, indeed, is so easy, that criticism should be cautious; and we shall prefer giving an abstract of our author's arrangement to any minute objections which may arise to it.

'Profiting then by the labours of my predecessors, by the advantages of immense collections, the numerous observations communicated to me by different naturalists, and the experience acquired by many years of study, as well as by the different courses I have given, I have considered, in an extensive view, all the species of the tribe at present under our eyes. I have distributed them in new groupes; and, receiving some genera from Linnæus and Bloch, modifying and rejecting others, adding new ones, some of which have been suggested in my class, and adopted by my collegue, Cuvier, in his Elements of Natural History, adjoining, in fine, to every section precise, constant, and distinct characters, I have concluded an arrangement of which I now give the result.

'I have employed, and rigorously limited, the genera labrus, scarus, sparus, lutjanus, bodianus, holocentron, and perca. I have introduced among these particular associations the genus ophicephalus, recently proposed by Bloch, separating, in each re-union, the fish with two dorsal fins, from that which has one only; I have formed the genus cheilodipterus, near the labrus; the dipterodon, near the sparus; the centropomus, after the lutjanus; the true sciena, hitherto scarcely recognised with accuracy, at a little distance from the bodianus: between the two last, appears the tænianotus, which forms a link

between them. I have inserted the new groupe under the generic name of cheilinus, between the labrus and the cheilodipterus; the hologymnosus, between the ophicephalus and scarus; the ostorhincus, between the scarus and sparus; the micropterus, between the sciæna and holocentrus; and I have distributed among the genera labrus, lutjanus, and holocentrus, the species included by Bloch in his genera, styled johnius, anthias, epinephelus, and gymnocephalus, which are rather distinguished by specific than generic characters; and, consequently, cannot be admitted into my general table of fishes.'

The naturalist will soon perceive, from this extract, our author's labours, and be able to appreciate them with accuracy. On a careful examination, though a few objections may be raised, we think he has greatly simplified this obscure groupe, and laid the foundation of a clear and scientific classification. The labri are singularly beautiful and active, but have never reigned as tyrants in the waves, or been subservient to the necessities of man. Like the passeres, among the birds, they enliven our ponds, as these birds do our cages; and, when they have been admired, are forgotten. The analogy proceeds further; they are inhabitants of all latitudes; but in fishes this is less remarkable, as the cold of winter, or the heats of summer, penetrate but a little way into the ocean. The labrus contains, in this edition, 128 species. Of these, some are new, some taken from the genus sciæna of Linnæus, which is, as we have seen, more strictly limited. The additions are numerous. The L. jaculatrix, from the Asiatic seas, occurs in the fifty-sixth volume of the Philosophical Transactions. The system of Bloch has furnished several species; among which are the melapterus, bifasciatus, and melagaster; but our author's obligations to Commerson would fill more than a page, were we to copy the titles only. As this groupe is, in a great measure, new, though the title occurs in other systems, we shall copy the definition. 'Labrus: the superior lip capable of extension; without the incisive or grinding teeth; the opercula of the branchiæ, deprived of points or indentations; a single dorsal fin: this back fin, far separated from that of the tail, or very distant from the neck, or composed of rays terminated by a filament.'

The chelinus, a new genus, differs chiefly by its scales or appendices. The second species is new, from Commerson; the first is the labrus scarus of Linnæus. The cheilodipterus is a genus consisting almost wholly of new species; one only, the C. boöps, seems to occur in the Linnæan system, reduced to the genus labrus. The distinguishing generic character is two dorsal fins.

The ophicephalus is a genus formed by Bloch, consisting of

two species only. The head, resembling that of a serpent, sufficiently justifies the separation of these fishes from the other species. The hologymnosus forms a genus, from its apparently wanting scales. There is but a single species of this kind among osseous fishes; and, of course, it merits distinction.

The scarus is the first genus of the fourth volume; of which we shall defer a formal introduction at this time, and pursue the intimately connected genera, which we have begun to notice. This genus is distinguished by its extended bony jaws, performing the office of teeth, with one single dorsal fin. It contains nineteen species, of which one is hitherto undescribed, from the MSS. of Commerson; one is taken from Forskal, unnoticed by Linnæus; one from Catesby; and one from Bloch. The others occur in the Linnæan system. The ostorynchus resembles the scarus, but is distinguished by two dorsal fins. One species only occurs, denominated from M. Fleurieu.

The sparus is a numerous genus, containing ninety-eight species. 'The superior lip is either not at all extensible, or slightly so; or the incisores and molares disposed in one or many rows; no points or indentations in the opercula; a single dorsal fin; this fin distant from that of the tail, or the greatest height of the body, properly so called superior—equal, or almost equal, to its length.' Some objection may be made to the extent of this definition, which almost amounts to a description. It is, however, necessary in distinctions unavoidably so minute. These are the gold and silver fishes of our vases; the inhabitants of a world anterior to the creation of the human species, for their impressions are still found in rocks of the earliest æras.

Many of the spari were known to Linnæus, and to the naturalists of antiquity; so that their habits, their manners, and peculiarities, have been often described. To form so extensive a genus, other genera, and the observations of many naturalists, have contributed. About one half of the number were known to Linnæus; but many of these have been collected from later genera, particularly the labrus and perca. Bloch has contributed largely, for twenty-seven of the species are described from his work. Commerson has supplied ten; Plumier four or five; Brünn, in the Ichthyologia Massiliensis, three; Osbeck one; and Desfontaines one; all of which are distinguished by the names of their respective discoverers.

The dipterodon is, apparently, a new genus. So far as the fishes here delineated were known to Linnæus, two species were inserted in the genus perca, and one in that of sparus. One is described from the manuscripts of Plumier; one from Commerson; and the sixth, and last, from Daubenton in the Encyclopædia Methodica.

The lutjanus contains seventy-one species, chiefly collected from the other genera of Linnæus. They have no teeth, like the spari, but seem to possess defensive armour in their points. The spari and the lutjans still preserve a similarity to the passeres in general manners and dispositions; and, were the fishes to be examined with a philosophic eye, we might trace many analogies of their tribes to those of other parts of the animal system. We add the definition:—'An indentation in one or many pieces of each opercle; no points in these pieces; a single dorsal fin; a single barble, or point of one, on the jaws.' Many of the species were known to Linnæus, and scattered among the genera sparus, labrus, perca, and sciæna; chiefly from the labrus and perca. The perca lunulata and aurata, described by Mungo Park in the third volume of the Linnæan Transactions, is included under this genus, with the same, or nearly the same, trivial names. The genus lutjan, which was formed by Bloch, is greatly enlarged from his system, which has furnished twenty-six species. Commerson's manuscripts contained eight, and a naturalist from Cayenne contributed one. The third volume of the Linnæan Transactions exhibits a singular species of lutjan—the L. scandens, described by lieutenant Daldorff: it climbs trees, fixing by its barbles, and grasping, in some measure, by its tail. It is there styled a perca. Four species are new, and among the *gifts* of Holland to France: these are such gifts as the slaves of Rome offered to their masters on the birth of an heir, or on any other festival.

The centropomus contains eighteen species. It is thus defined:—'An indentation * of one or many pieces of each operculum; no sharp point to these pieces; a single barble, or point of a barble, (a sharp kind of process) in the jaws; two dorsal fins.' The species known to Linnæus were included, by him, amongst the genera perca and sciæna. Added to these, are three new ones from Bloch, and five from the manuscripts of Commerson. One other fish of this genus, not hitherto described, is found in the sea, near the mouth of the Seine; and is delicious after having inhabited the river a month. This is a singularity; for fishes which live both in fresh and salt water, have generally the highest flavour when they first come from the sea.

The genus bodianus is distinguished from the others by one or many needles, and no denticle (*dentelure*) on the opercula, having one dorsal fin only. It contains twenty-four species. Those formerly known were placed in the genera sparus and perca. Besides these, Bloch, who originated the genus, has furnished ten; Commerson three; Plumier one;

* *Dentelure* we have styled *indentation*. Neither the term nor the translation is strictly correct; for the projecting points of the indentations are sharp.

Holland has bountifully *given* three. The B. hiatula occurs in Willoughby; and two are non-descripts, from the collection of the national museum. Many of these species are of an exquisite flavour.

The tæniapotus is a new genus, whose name is derived from the great length of the dorsal fin, which extends from between the eyes to the anal fin, composed of more than forty rays. There are only two species; the 'lato-vittatus,' from Commerson, and the 'triacanthus,' the *gift* of Holland.

The sciænæ possess the chief characters of the two last, except the long fin, and are distinguished by *two* dorsal fins. There are eleven species; several are in the former systems, not under this name, but among the percæ and labri; two are taken from Bloch, three from Commerson, two from the Dutch collection.

The peculiar distinction of the micropterus, a new genus, is two dorsal fins; the second very low, very short, with at most five rays. One species only has been discovered; and it is to be found in the national museum of natural history; its trivial appellative is Dolomieu.

The holocentrus comprises sixty-four species. It is distinguished by 'one or more spines; one denticle on the opercles; a barble, or the point of a barble, on the jaws; a single dorsal fin.' This genus forms an elegant groupe, extensively scattered through the sea; and, in many places, greedily sought by the luxurious. The species are often new. Those furnished by Linnæus occur chiefly in the genera perca and sciæna, and a few are found among the labri. Of the other species, Bloch, who formed the genus, furnishes twenty-two; Plumier one; Commerson eight. One was brought from Cayenne; one from the Isle of France; two were selected from Chinese drawings; and six from the Dutch collection.

The perca, which closes the groupe thus carefully arranged and accurately discriminated, resembles the last genus, but has two dorsal fins. The number of species is fourteen. The description of the river perch is very full and entertaining. The species of this genus known to Linnæus, except the P. fluviatilis, are arranged under the genus sciæna. Of the new species, one is from Commerson, one from Leblonde of Cayenne, one from Forskal, and three from the Dutch collection.

As we were unwilling to interrupt the description of genera so closely connected, we have omitted to introduce the fourth volume, with the author's account of his labours. Before we proceed further, therefore, we shall observe, from his advertisement, that this volume contains the description of 504 species, of which ninety are hitherto unknown. These are included in forty-three genera, of which twenty are new. 'The first

four volumes of the history contain, in consequence, 1114 species; of which, 244 had escaped the observations of naturalists prior to the publication of our inquiries. These species are divided into sixty genera, long since adopted; and ninety-two others, which we have been obliged to form.'

The introduction to this volume is entitled the Third View of Nature. The two first views were taken by Buffon: our author furnishes the third.

We have not been highly gratified with the perusal of this introduction. It contains a general analogy between fishes and birds, not carried to so great an extent as to be peculiarly interesting; and it is singular that M. la Cépède should have omitted the common instance of a similarity of structure in fins and wings, when the organs of the flying fish are adapted for both purposes. Our author proceeds to examine the manners of fishes, with a view to the original production of the species. When the vast continents were overwhelmed with water, there could be but a very small number, in his opinion, of these animals, because they require a shore on which to deposit their ova and spawn. This is in some degree true; but it does not affect those fishes that constantly inhabit the ocean; and even in a universal submersion there must be shallows; and fishes require no more. If any circumstance more particularly excite our admiration of Moses' solemn and sublime cosmogony, it is, that, in the great work of creation, fishes preceded. We know, from the fossils now discovered, that they existed before land animals, before birds, before vegetables, as Moses has told us; and, to add, if possible, to the evidence, we find the remains of animals, which could only have existed in the shallows of an ocean, which could only have lived on those productions offered to its mouth. The megalatherium, whose skeleton was lately exhibited, has not, from the formation of the bones of his neck, a power of raising or depressing his head in any considerable degree. He could not crop the herbage below, nor raise his mouth to the branches above; so that, if a land animal, he must have been compelled to have fed on those trees only whose boughs met his mouth. It is more reasonable, therefore, to conclude, with governor Pownal, that he existed only when the earth was inhabited by fishes, when the sea, in those parts where the continents now are, was of course shallow; and where, consequently, myriads of fishes would hourly meet his monstrous jaws. The hippopotamus, an animal almost equally immovable, still exists, because he can occasionally feed on vegetable substances. It may be said, Are there not, at this time, numerous shallows where a megalatherium might live? There may be such; but ravenous animals are few in number, and the species is easily destroyed; and, when we reflect on the continuance of almost every species formerly known, in

some spot of the globe, we shall scarcely be able to account for the disappearance of any, but from some change in the state of this planet, not adapted for its support.

M. la Cépède adverts also to the confusion in the fossil remains of fishes which inhabit shores and deep waters; to the mixture of the inhabitants of the tropical and arctic seas. We know that some considerable convulsions must have taken place. Even from the Mosaic account of the creation, a fomes must have been left, which would, at some time, kindle into a destructive flame; but we ought also to consider, that, when the sea covered the earth, the littoral fishes were those of the shallows only, and not distinguishable from the pelagian; and, while there was no dry land, the temperature was more equable and mild. A question, that our author has not adverted to, is, the source of river fishes; since, at the creation of these animals, all was sea. As it is not a part of M. La Cépède's subject, we shall not enlarge on it, but add only our opinion, that *all* fishes were originally inhabitants of the ocean; that, by degrees, they have been accustomed to fresher water, and that, in general, they have degenerated in it. The herring is found in the Lake Baikal, evidently in a vitiated state. It is time, however, to return to the remaining genera of fishes described in the present volume.

The harpè cæruleo-aureus is a new species, and one of singular beauty; it has only two colours, but these are of gold and the purest sapphire. It was delineated on vellum by Plumier. It is distinguished by its teeth, the length and size of the dorsal and anal fins, while the latter is attached round a very large, compressed, triangular prolongation of muscular flesh.

The pimelepterus is also a new genus, found in South America, described and delineated by Bosc. The fins are adipose, and the inferior fins further from the throat than the pectoral.

The cherlio contains two species, from the manuscripts of Commerson. 'The body and tail are very long; the end of the muzzle flat; the lips, particularly of the lower jaw, pendulous.' These circumstances sufficiently discriminate the genus.

The polatonus is also a new genus, so called from its divided opercula. It is from Carolina, communicated by M. Bosc. In its native haunts it is called skib jack, which has procured its only species the trivial name skib.

The leiostome is from the same country, consisting also of a single species, sent by the same naturalist. The jaws are without teeth, and entirely concealed under the lip; lips extensible; mouth placed under the muzzle; no denticle or point in the opercles; two dorsal fins.

The centrolophus is a new genus, from Rouen; and its only species is denominated 'niger,' from its colour. Its distinguishing marks are a longitudinal crest, and a longitudinal rank of prickles, separate from each other, and, in part, concealed under the skin, and above the neck; the teeth small, fine, and equal, a little distant from each other.

The eques is a new genus, established, under this title, by Bloch. The only species, the Americanus, is the chætodon lanceolatus of Linnæus, singularly beautiful in its colours. It has many rows of teeth, two dorsal fins; the first of which is almost as high as the body.

The leiognatus argenteus is the scomber edentulus of Bloch. It greatly resembles the scombri; but the absence of teeth determined our author to form of it a new genus; perhaps with propriety.

The chætodon is a numerous genus, consisting of forty species. The greater number were known to Linnæus; but his genus is far more numerous; and, as our author's reasons for separating the other species will illustrate many of the subsequent genera, we shall transcribe them.

'The word chætodon implying teeth more or less soft, and, like silk or hair, moveable and elastic, I thought right to admit such only as had these very obvious characteristics, and which also had the muzzle somewhat extended; a straight aperture at the mouth; small scales on one or many of their fins, or a very elevated body; lastly, the body and tail very flat in the direction of their width.

'We have separated from this genus, and distributed in small particular families, first, the fishes which differ from the true chætodons, by prickles wholly, or almost wholly, without a membrane, and placed separately before the dorsal fins. These I call the acanthinions; 2dly, those which have two dorsal fins, chætodipteri; 3dly, those whose opercle is indented, and which have one dorsal fin only, pomacentri; 4thly, the pomadysi, with two dorsal fins, and an indented operculum; 5thly, the pomacanthi, which have the opercles armed with prickles; 6thly, holocanthi, whose dentelated opercles are also stuck with points, or needles; and, 7thly, those which have denticles, prickles, and two dorsal fins, the enoplosi.

'All these species have also the flexible teeth, like the fishes for which we have reserved the genus chætodon. We have separated, for more important reasons, the glyphisodons, which have indented teeth; the acanthures, the sides of whose tail are armed with one, or several spines, and whose teeth are not flexible; the aspisures, the sides of whose tail are covered with a kind of buckler; and the acanthopodes, whose thoracic fins

are composed only of one or two spines. We have thus arranged in twelve genera the fishes commonly comprised in two, the chætodons and acanthures.'

The species of chætodon, we have said, were generally known to Linnæus. Mungo Park has, however, furnished two, the cannellatus and trifasciatus, described in the third volume of the Linnæan Transactions. Bloch has described five; Commerson three; and Plumier one.

On the other species of chætodon, this being arranged in twelve genera, we need not enlarge. They occur, in general, in Gmelin's edition of the Linnæan System; but Commerson, the Dutch collection, and Bloch, have furnished a few new species. The enoplosus was found on the coast of Australasia, and described by Mr. White, whose name it bears.

The selene is a new genus. The body of the fishes which compose it is very compressed, and on each side presents the form of a pentagon or tetragon; the line of the front is almost vertical; the distance from the highest part of the neck to above the muzzle, is at least equal to that from the throat to the anal fin; two dorsal fins; one or more prickles between them; the first radii of the second dorsal extending, at least, beyond the extremity of the tail. The first species is from Plumier, the second is the zeüs quadratus L.

The argyreiosus contains only one species, the A. vomer; the zeüs vomer L. It approaches very near the selene argentea, and perhaps might have been brought under this genus.

The zeüs is a Linnæan genus, somewhat more strictly limited than in the System of Nature. To this genus, the dorey, the delight of every epicure, from the time of Ovid to Quin, belongs: the term is French (*dorē*), and derived from the golden yellow colour mixed with the green.

The gallus virescens is the zeüs gallus of Linnæus, probably not meriting a generic distinction. The chrysolotus luna is the zeüs luna L.; the capros aper, the zeüs aper L.

The pleuronectes is a genus of former naturalists; it is of the turbot tribe, and shortly characterized by having both eyes on the same side of the head. It consists of twenty-nine species. The description of the P. fletan, the halibut, is long and interesting; but the latter is only called turbot in Scotland. The dab, the sole, the plaice, and the flounder, are well known in England. These, with the P. ocellatus, tridactylus, zebra, plagiusa, maximus (the English turbot), rhombus, punctatus, dentatus, passer, papillosus, japonicus, and argus, are Linnæan species. From Petiver our author has collected the argenteus; from Klein, the P. macrolepidotus; and the P. Commersonii from Commerson.

The achirus is a new genus, comprehending six species.

Its distinguishing characteristics are:—'the head, body, and tail very compressed, without pectoral fins:' Gronovius and Commerson furnish the two first species; the Dutch collection the third. The A. fasciatus is the pleuronectes lineatus of Gmelin's edition—the P. achivus of the tenth edition of the Systema Naturæ. The A. bilineatus is the P. bilineatus of Linnæus. The last species is from the Dutch collection.

The volume concludes with some supplements. Three new species are added to the genus petromyzon; eight to the genus raia, chiefly from the French coast; another squalus from the second volume of the Linnæan Transactions; two balistes from Mungo Park, in the Linnæan Transactions; another cyclopterus from Havre; an ophisurus from the Dutch collection; three species of stromateus from Bloch; a chrysostomus, a scomber, and seven new species of caranx, from Bloch; another caranxmorus and two species of centranotus from the same naturalist; two labri from Bosc; another lutjan from Bloch, and one overlooked among the chætodons of Linnæus—*viz.* C. arcuanus; two species of centropomus from Commerson; a species of holocentrus from Linnæus, chætodon bifasciatus L.; two species of chætodon from Commerson, with various additions of synonyms.

One new genus is added—a most formidable animal, from its size, its activity, its address, and its arms. It resembles the sword-fish, and is styled machaira, and is caught near the Isle of Ré. We shall only add its definition:—'The superior jaw elongated in the form of a sheath of a sword, and of a length equal to a fifth, or at most a quarter, of the length of the animal; two osseous and lanceolated bucklers from each side of the extremity of the tail; two dorsal fins.'

ART. V.—*Voyage en Islande fait par Ordre de Sa Majesté Danoise, &c.*

Travels in Iceland, undertaken by Order of his Danish Majesty, containing Observations on the Manners and Customs of the Inhabitants, a Description of its Lakes, Rivers, Glaciers, hot Springs, and Volcanoes, different Kinds of Earths, Stones, Fossils, Petrifactions, Animals, Fishes, Insects, &c. with an Atlas. Translated from the Danish by Walter de la Peyronie. 5 *Vols.* 8*vo.* Imported by De Boffe.

THIS singular island, which freezes and burns within a compass so minute as that a line can be almost drawn between the limits of the greatest heat and severest cold, is not unknown to the English reader, and less to the English philosopher. Horrebow, Anderson, and others, long since pointed out its various attractions and miseries. Van Troil, accom-

panied by sir Joseph Banks, visited and described its philosophical curiosities; and Dr. Black, very lately, analysed the waters of its boiling spring, which was known to dissolve or suspend one of those earths on which, in our hands, water would scarcely act. If it be conceived that so minute, or, as it may be called, so statistic a view of this remote spot cannot be greatly interesting to mankind at large, however it may be to its sovereign, whose dominions, under an inclement sky, and on an unfertile soil, enjoy few of the blessings of nature; yet, in the eye of a philosopher, every thing interests that is not foreign to the human race. He delights in seeing nature struggling against the disadvantages of climate, in perceiving the corn sown and reaped in the course, comparatively, of a few weeks, in which the sun seems to make rapid efforts to compensate for his long absence, and his haste to retire. He observes, with pleasure, mankind contending with the elements, and assiduously improving the short season of action: he examines the care with which nature clothes those animals that are destined to endure the severest winters, and takes advantage of their plans to defend himself with their coverings, or to avail himself of their remedies.

Iceland is not, also, without attractions of a different kind. In the middle ages, when the south of Europe was desolated by wars, and involved in all the horrors of intestine or external contention, this island was the repository of Scandinavian literature, and the wild poetry distinguished by the term Runic. The history, the divinity, and the antiquities of the north are contained in the books of the Icelandic sages; and the English antiquary would find, even here, the source of some of his customs, and the etymons of a part of his vocabulary—for the same race gave birth to the Icelanders and the Normans: from the latter, various manners and terms still in existence are derived. These subjects, however, we cannot now enlarge on; for the volumes before us chiefly relate to the natural history of the island. Though, therefore, we cannot follow these extensive details minutely, we mean not to lessen the value of the work even to those not immediately connected with it. We have perused these volumes with some satisfaction; but we dare not say that they will be equally interesting to every reader. We shall introduce our account with the preface—*avis du libraire.*

'His Danish majesty, equally interested and anxious to be acquainted with Iceland—one of the interesting parts of his possessions—charged his Academy of Sciences with an examination of this island, of which only vague and imperfect notions were entertained. MM. Olassen and Povelsen were fixed on for this attempt; the first claiming Iceland for his native

country, and the other having resided there as first physician. To these philosophers we are indebted for this collection of observations of every kind respecting Iceland. They have spared neither trouble nor inquiries, to give a striking view of the civil and natural history of the island; and it is from their observations, as well as from the MSS. of other philosophers, whose only object was the study of man and of nature, that this work has been compiled, under the auspices of the king, and the direction of the Academy. It leaves nothing for the reader of any description to wish for—at least to the reader who knows, that, from the history of travels, true knowledge is acquired, especially if written with the veracity that distinguishes these, the travels of Pallas, and some others.

'In the plan of the work, the division into *fiordung* (quarters), *syssels* (districts), and *heredes* (jurisdictions), is closely observed. The authors enter into the most circumstantial details of each portion of the country, and the divisions it contains. Of these last, they describe, first, their situation; their extent; their distribution; their present state, whether inhabited or not; the mountains; the valleys; the glaciers; volcanoes; rivers; lakes; springs; hot mineral waters; islands; the temperature of the climate; and the variety of the seasons. They, secondly, notice the nature of the soil; the different kinds of earths, stones, minerals, fossils, petrifactions, &c. 3dly, the fertility of the country; the meadows; herbage; plants, with their different properties: 4thly, the inhabitants; their genius; their forms; the diseases to which they are subject; their kind of life, industry, manners, sciences, and arts: 5thly, the animals of every kind, the insects, and conchyliology: 6thly, the ancient and new appearances of nature: 7thly, the establishments and improvements already made, and which remain to be effected: 8thly, the ports of the island, and its commerce. In short, nothing seems wanting; and the reader "*copiâ plusquam penuriâ premitur.*"

If the ancients had any fixed spot in their view, when they spoke of Thule, or only trusted the vague stories of Phœnician mariners, who distinguished by this name their most northern port, and transferred it, as their discoveries advanced, 'to Nova Zembla, or the Lord knows where,' Iceland must have been the place. It extends from about latitude 63° 15′ to 67° 20′; and from 349° 10′ east longitude from the Isle of Ferrol to the second degree of the same meridian. Its form may be compared to a crescent, of which the western horn is most projecting, and the convex part faces the south. As usual, the western coast is very deeply indented by the encroachments of the ocean; and the south-western point nearly resembles that of England. We see almost the counter part of the Bristol Chan-

nel, and the embouchure of the Tamar and the Plym, on the south. The northern coast is also deeply intersected, seemingly from the ground being lower, or less capable of resistance; while the bold projecting points on the south form a powerful barrier to the encroaching ocean. The higher part of the island is in the centre; and, contrary to the observation of Van Troil, the rivers fall from the centre of the island in every direction. The high lands, however, approach nearer to the south than any other quarter of the island. The map is on a large scale, and apparently correct. It is, nevertheless, singular that Hecla does not occur in it. This celebrated mountain is on the southern coast, where, in its curvature, it verges to the north-west, at no great distance from the Isles of Wegtman. A view of it is indeed given, but so little characteristic, that it may well serve, with a change of title, for any other mountain. The plates are sixty in number; and in general represent, with sufficient fidelity, different objects of natural history, as well as the Icelanders in their different dresses. The views are very badly executed.

The travelers begin their description with the southern quarter, which is, in reality, the south-west. In England, what they style so would extend from the Isle of Portland to the mouth of the Parret. We need not again repeat the different heads. What relates to the natural history of the island is not very well executed. The zoölogical part is rather general than scientific, though the reader is referred to the System of Nature. In mineralogy, the old definitions of Cronstedt are generally quoted; and the latest author that we recollect in the margin, in that line, is Wallerius. We find nothing, in this part, peculiarly interesting. We were, however, attracted by a section entitled '*pyramids*,' and shall select our authors' short description.

'We observed here (at Geitland) two particulars sufficiently remarkable. The first is, that the sand is accumulated on the ice of the mountain in black round pyramids of the shape of sugar loaves. The figure is as regular as if formed by design. These conical heaps are from four to six feet in height, and are only a few paces distant from each other. In their original formation, there is a large cleft accompanied by others of a smaller size. In some places they are not so regular as in others—principally where we began to ascend the glacier—because the sand is transported towards the ravines, and fewer pyramids are formed. We may well suppose that it is not possible for the sand to remain accumulated in this manner, or that these masses can preserve their form, without being softened by their own humidity. Having pushed our pikes, or sticks pointed with iron, into these pyramids, we perceived that their

nucleus was ice. In the first we met with, the mass which formed its basis had sunk, or rather it had been dissolved by the water which trickled from its summit, where we perceived the beginning of a furrow, which we noticed also in many others.'

Our travelers proceed to the western quarter, which is, in reality, the north-west; and indeed, from this part of their journey, the description just quoted was inadvertently taken. They here meet with the fossil wood called *sturtar brandur*. This properly belongs to the vegetable kingdom, though another kind, which we shall afterwards notice, seems to be of animal origin. It lies under the basis of the rocks, which have probably overwhelmed it. The stratum is two feet thick: but our travelers could not ascertain its extent. This substance, in its organisation, greatly resembles ebony, is heavier than oak, and yields easily to the tool. In water, or when exposed to moisture, it continues for a long time; but in dry air it soon splits into an infinite number of very fine filaments. It gives a strong heat, but requires some more inflammable substance to kindle it. The flame is small and clear, the smoke acid and disagreeable, but not unwholesome. When the inflammation is checked, it forms a hard, black, shining charcoal, which gives a powerful heat and a pure flame, without smoke. This coal, applied to the abdomen and sides, is said to relieve internal pains; and the Icelanders use it to free their clothes from vermin. The author resumes the subject in his second volume, in his examination of the same quarter, and adds to the proof of its being of ligneous origin: yet the successive depths at which it is found are an argument in the opposite scale; for the forest which furnished the lowest stratum must have been far below the level of the sea; and repeated earthquakes, or other convulsions, can alone explain these successive strata. When, however, we compare the evidence adduced in this volume with the observations and analysis of the anthracite by Fabroni, of the piligno of the Italians, the turfea lignea of the Germans, described by Razonmouski in the Journal de Physique, we cannot refuse our assent to its vegetable origin. In the Icelandic fossil, leaves are found in the intervening strata: the ardoise, which covers it, is little other than the vegetable mould hardened; and the vitriolic acid, which can give wood the black colour and the fossil appearance, is obvious to the smell when it is burnt. Iron also is a production plentifully scattered in this part of Iceland: nor are astringent vegetables wanting, to impart, by means of the iron, the peculiar colour of the surturbrand.

The Iceland lichen is another peculiarity of this island, though occasionally found in many parts of England. When

steeped in water, to take off its bitterness, the Icelander makes bread of it; and the authors suppose that it would supply the rein-deer with food, as well as its kindred species. The antiphthisical qualities are also mentioned with approbation—we fear, however, without a sufficient foundation. But this subject we must soon resume under another guide.

In this work we find the island and its inhabitants described more advantageously than in the volumes of our authors' predecessors—we trust not with political views, to add to their monopolies and their imposts, for they are already burdened with both; and even their moss is subjected to a duty. The cause of the difference we shall explain in the author's words:—he is speaking of the western quarter.

'Towards the south of the glacier, and in many places where there are fishing establishments, for want of turf they burn rushes, and the larger bones of fishes when dried. This has occasioned Anderson, Horrebow, and the author of the Danish Mercury, to say that the Icelanders burned nothing else; but we were convinced, from our own observation, that the bones were employed in a very few places only, and even then for want of other materials. The disadvantageous representations given of the Icelanders arise from foreign seamen, who visit only the coast and the fisheries, where they find much filth—a circumstance common in such places, and which is always inseparable from poverty. This dirtiness exists in the same degree in the fisheries of other nations. Visitors and writers should, therefore, have been more indulgent to our poor Icelanders, and not thrown the odium of filth on a whole nation, which they have not taken pains either to be acquainted with or to appreciate. Besides, what Mr. Anderson has said of the warmth which these fishermen procure by means of the bones of whales and other fishes, which they cover with their oil, is true only of those wretches who can obtain neither turf nor wood. Rushes alone would be a poor resource, from the difficulty of kindling them, and the crackling sparks they throw out in consequence of the saline particles they contain. The odour which they exhale is very disagreeable to those not used to it; but that of fish bones is still worse.'

In this western quarter is a cavern, which contains some inscriptions in an unknown language. The characters are not Runic, and they cannot have been intelligible to the members of the Danish Academy, under whose auspices these travels are published. The riches of this quarter are inconsiderable. The deficiency of coal renders the iron useless; and Iceland has little to bestow, except its moss, its eider-down, and its fishes. The whale-, the salmon-, and the herring- fisheries are valuable; but the inland prospect offers only an interchange of uncomfortableness—abrupt and barren pics, freezing glaciers, valleys worn

by winter's torrents, a few meadows thinly scattered among vast tracts of naked mountains.

In this sequestered isle, magic flourished during the pagan æras; and we learn, from the Edda, that Odin was the great magician of the north. The Runic character contained their incantations, which were diversified in their forms and their objects; of which the modern, or rather the comparatively modern, dæmonology was a descending branch. The most ancient laws of Iceland forbid the 'black art' of enchanting absent persons by songs and incantations; and even Odin is said to have disapproved of what must be obnoxious to any deity. The offender, when convicted, was confined in a sack, stoned to death, and then burnt.

'We may properly compare the use of the Runic characters, in their origin, to that of our printed and written letters. In reality, these were letters only; but the novelty of the invention, in Germany and the north, rendered them so wonderful, that common people considered them as symbols of an occult science.'

Invention took advantage of this misapprehension, involved these characters in mystery, inscribed them on weapons and amulets, and, at last, suspicions became certainties, and the means of acquiring knowledge bound the strongest chains on the uncultivated mind—chains to confine it in the most gloomy, the most uncomfortable state of ignorance and terror. In 1690, every condemnation was subjected to the revision of the king; and, since that time, the crime and the punishment are become gradually less common.

The northern part of the island is described in the fourth volume, and includes some of the adjacent islands, but offers nothing very interesting. The thermal springs first occur in the north-eastern quarter; and we here begin to trace the volcanoes which blaze so conspicuously in the east and the south. The description of the eastern side of the island occurs in the same volume.

The south, however, affords objects of the greatest interest. Here Mount Hecla blazes with inexhaustible fires; islands form under the eyes of the spectator; and the magnificent Geyser bursts with a rapidity equalled only by the headlong stream, which escapes with violence from an unusually resisting vessel, and returns to a basin of flint of its own formation. This, indeed, is the part of the island generally visited, and often described. To copy from this part of the travels before us would be to repeat a well-known tale; but the authors seem to have observed with judgement, and to have delineated the various appearances with fidelity. Their representations of some singular *auroræ boreales* are peculiarly interesting; and we might have transcribed some passages, but that our article has already exceeded its destined limits.

ART. VI.—*Beitrage zur chemischen Kenntniss der mineral Kærper.* Posen.

Memoirs subservient to the chemical Knowledge of mineral Bodies. By M. H. Klaproth. Vol. III. 8vo. Imported by De Boffe.

The two first volumes were published in our own language in 1801, and noticed in our thirty-fifth volume, New Series. We there apologised for the dryness of chemical analysis; and, as we felt that the subject was as incapable of ornament as of general interest, some reason should be assigned for allotting it a place in this part of our work, where space is peculiarly valuable. In fact, some of the first analyses were so much connected with the question at present disputed—the value of Dr. Hutton's Theory of the Earth,—that we thought it of importance to bring the several facts together, in this place.

We mean not, however, to lessen the merit of M. Klaproth's labours. Each new volume adds to the progress of mineralogy, and introduces some reformation in a science now emerging above conjecture and suspicion. The results have been already communicated to the Academy of Sciences at Berlin, and are brought together in the mineralogical tables of Karsten. But neither work can reach the English mineralogist, unless he be eager in the search of knowledge, and active in the acquisition of new publications in his own science. We are sorry to be obliged to remark that few are distinguished by such energy.

Were we to point out, in this volume, the most interesting discoveries, we should fix on the essay on tellurium, the yttria, the discovery of a vegetable acid in the mellite, as well as the existence of natron in many fossils, particularly in the chrysolite, the schistous porphyry, basaltes, and asphaltes. The present volume contains thirty-eight articles, many of which may be styled, in the language of natural historians, an abridged monography, containing the history, the description of the external forms, the chemical properties, the geognostic and geographical circumstances respecting each fossil. The specific gravity, and Karsten's characters, are added. We shall subjoin a few of these analyses in the present article, and pursue the subject, if in our power, in another Appendix. Perhaps, indeed, we may be superseded by an English translation.

The 'sonorous porphyry' is a singular substance. It resembles the other porphyries, and consists of flint and alum, sprinkled with minute laminæ of feltspar, and a few grains of amphibole. The trivial name is given from its metallic sound when struck. It is found in Germany, and yields little to time and inclement seasons. Its masses are isolated, not in chains, and generally in the neighbourhood of basaltes. Its colour is grey, inclining to green: it splits into thick laminæ, whose edges are transparent: its specific gravity is 2.575. It is

chiefly composed of flint and alumine, with about 0.08 of soda, 0.03 of oxyd of iron, and nearly 0.03 of lime. Soda thus forms one-twelfth nearly of this stone, which often rises in masses of a vast height and bulk. It is useless, therefore, to recur for its origin to the decomposition of sea-salt. Yet we must add, that this mountain is evidently of a secondary formation, though soda certainly exists in the primary ones, and as the basis of sea-salt seems one of the primæval productions.

The great object which led us to introduce the present work, was the analysis of the prismatic basaltes of Hasenberg. In this analysis, M. Klaproth confirms that of Dr. Kennedy, who found soda in the lavas of Ætna, and in the basaltic hills of Scotland. The basalt, exposed to the heat of a porcelain furnace, in a crucible of clay, is converted into a brown black glass, transparent at its edges. The flint is nearly in the proportion of one half; the alumine nearly 0.17; the lime more than 0.09; the magnesia and soda each more than 0.02. Dr. Kennedy found some muriatic acid; but, though M. Klaproth discovered a small proportion, yet it was so inconsiderable as not to amount to the one-hundredth part of a grain. It is greatly to be regretted, that scarcely, in any instance, are the aërial contents examined.

'Analysis of the gold mines of Transylvania.' It was from the analysis of these mines that M. Klaproth discovered the tellurium, which is in so great a proportion, that they have been since styled the auriferous mines of Tellurium. The first is the mine of paradoxal or problematic gold, which contains, in 1000 parts, 925.5 of tellurium, 72 of oxyd of iron, and only 2.5 of gold. The graphic mine of gold contains 0.60 of the new metal, half as much gold, and 0.10 of silver. That of Nagyac contains nearly 0.27 of gold, with tellurium, a large proportion of lead, and 0.08 of silver. The foliated mine of Nagyac is poor in gold, and chiefly rich in lead. Mercury is but feebly attracted by tellurium. Water precipitates tellurium from its solution in muriatic acid; but a larger quantity re-dissolves it. Alcohol precipitates it completely, but not in the form of an oxyd, since it is joined with a small proportion of muriatic acid. When the acid predominates a little, the solutions are not rendered turbid, nor precipitated by prussiat of potash—a circumstance common to it, to platina, and antimony. Phosphorus, added to the solution, is soon covered with metallic leaves. Gall nuts produce a very slight change only.

'Analysis of the mines of tungstein of Schlackenwald.' This mineral has been lately styled scheelin, from Scheele. It contains tungstein and calcareous earth; but the proportions appeared different in the analyses of Scheele, d'Elluyar, and our author. The Cornish ore of tungstein is not so rich in the metal as that of Schlackenwald.

M. Klaproth found the gadalonite contain nearly one half of yttria, with some flint, and a little oxyd of iron. The black mine of Szekeremb, in the Seven Mountains, is of a colour between brown and black, compact, sometimes veined, sometimes forming alternate strata with a red ore of manganese. Its aspect is semi-metallic; its fracture unequal; grained and foliated in every direction. The fragments, into which it splits, are irregularly angular, but the angles are seldom obtuse. When scratched, it is yellow, verging on green, moderately hard, smooth to the touch, its a specific gravity 3.95. It consists chiefly of manganese, oxydulated by an excess of carbonic acid.

We shall conclude our article at present with the account of the cryolite, one of the newest and most interesting discoveries of mineralogy, and of umber, a substance little known, though much employed by painters. The cryolite was found in Greenland, and received from Copenhagen, some time since, in a small quantity. Professor Abilgard undertook to analyse it, and found it composed of fluoric acid and alumine—an unexpected combination, of which nature furnished hitherto no example.

Its external form, *viz.* its crystal, is hitherto unknown: colour grey, or a clear white; fracture longitudinal, parallel to its axis, less brilliant. In each direction the brilliancy is glassy. The fractures are foliated, and divided at right angles, but unequal in other directions. The cryolite is splendid, in cubic pieces, semi-transparent, tender, and sufficiently soft to the touch, very brittle, and of a specific gravity about 2.95. Exposed to the blow-pipe, it forms an opaque white bubble, and then loses its fusibility, and resembles an earth strongly calcined. Cryolite is not, therefore, its proper appellation. One hundred parts were found to contain forty of fluoric acid, with the water of crystallisation; thirty-six of soda, and twenty-six of alumine: 0.08 are lost.

The ancient mineralogists gave the name of umber to a brown earthy powder. It consisted of a brown coaly earth, capable of being converted to cinders. For this reason, Cronstedt called it mumia vegetalis, and Wallerius, humus umbra. The true umber is, however, incombustible, and is an ore of iron. Santi found it to contain 0.53 of iron, with 0.24 of alumine, 0.19 of flint, and 0.04 of magnesia. This analysis is, however, evidently erroneous; and M. Klaproth examined the umber of Cyprus, which externally resembles that which is known in commerce by the name of fine Turkey umber, and is equally useful for the painter. Its external characters are, therefore, sufficiently known. He found 100 parts to contain forty-eight of oxyd of iron; twenty of oxyd of manganese; thirteen of flint; five of alumine; and fourteen of water.

(To be continued.)

ART. VII.—*Heliogabale, ou Esquisse morale de la Dissolution Romaine, &c.* Paris.

Heliogabalus, or a moral Sketch of the Dissolution of Rome under the Emperors. 8vo. Imported by De Boffe.

'PAINTERS,' says the writer of this publication, 'willingly place a monster of Ethiopia by the side of a beautiful woman: it is thus the hideous features of Heliogabalus become a foil to the pure form of Alexander Severus. In the picture we here present as a moral drama, vice is punished and virtue triumphs.' This *moral drama* is given in a series of letters, supposed to have been written by the chief characters who are introduced into it; and, in general, these characters are fairly preserved. In reality, the writer had little occasion for violating them in any instance, the outrageous and unrivalled criminality of Heliogabalus, on the one hand, and the benevolence and virtue of Alexander Severus on the other, affording him from nature alone a sufficiency of materials to answer every purpose, without having recourse to the contributions of his own fancy. With the history of these princes most of our readers must necessarily be acquainted; yet a short reference to it may refresh their memories, and enable them to enter more satisfactorily into the novel before us. The brief outline we thus present, we shall select from Herodian and Dio Cassius. Upon the death of the emperor Caracalla, Macrinus, who succeeded him, banished from the Roman court the princesses Julia and Mæsa—the mother and aunt of the former—as persons dangerous to his authority, from their insinuating and popular talents. Mœsa retired to Emesa in Phœnicia, with her two daughters, Julia Soœmis, and Julia Mamæa. Of these daughters, each had a son—that of the former, who was the elder by about four years, was named Varius Avitus Bassianus, and that of the latter, Alexianus. Both these grandchildren Mæsa consecrated to the *Sun*, the chief deity of the inhabitants of Emesa; and to whom, under the title of Eleagabalus, they had erected a magnificent temple. Thus consecrated, Bassianus, the elder, when at the age of about fourteen, was appointed pontiff of the solar deity, and was hence, himself, denominated Eleagabalus, or more generally Heliogabalus. This temple being at one time situated but at a short distance from the camp of Macrinus, his soldiers were in the habit of paying frequent visits to it; and Mœsa, perceiving that the graceful person and elegant demeanour of her grandson had captivated the Roman army, improved the opportunity that was presented, boasted of his near relation to the late emperor Caracalla, of her own immense wealth, and added, that she would amply enrich every one who would espouse his cause. The stratagem succeeded; the standard of revolt was erected:

Heliogabalus was declared emperor; and Macrinus, shortly afterwards, fell a sacrifice. We shall not pursue this abandoned prince through the career of vice, debauchery, and profligacy, which he almost instantly commenced; it is enough to observe, that, about three years after his elevation to the imperial dignity, at the express desire of Mœsa, who foresaw that the Romans would not much longer endure his criminalities, he adopted his cousin Alexianus, then only about thirteen years of age, as his successor; who in consequence assumed, with great pomp, the name of Alexander Severus: a step, however, which Heliogabalus soon afterwards repented of; and gave full proof of such repentance by repeated attempts to murder him. In all these he was unsuccessful; and, in less than twelve months after he had adopted him, evincing the same diabolical disposition, was slain by the enraged soldiery, and Alexander declared emperor in his stead.

The *drama* before us (as our author denominates it) commences at the time when Heliogabalus, having been raised to the imperial dignity, was indulging himself in every species of excess, and even bestiality. It opens with the following note from Mamæa to Ulpian, a celebrated civilian, who flourished at this period, and a part of whose labours are generally conceived to have enriched the Theodosian code.

'The shame and misfortunes of Rome have reached their height. Read, sagacious Ulpian.'

This note incloses two letters, which had been put into her possession by Cynisca, a confidential domestic, who had received them from Gordius, a detester of such practices; and which develop, in glowing colours, much of the dissolute and scandalous depravity of the emperor, of which a considerable portion might have been merely glanced at, and not minutely detailed, without any loss either of general interest or delicacy. The cause of virtue and morality is, however, through the whole of the history, pointedly espoused, and warmly supported. As a contrast to the above disgusting picture, we shall select the following letter from Ulpian to Sylvinus, a fictitious character, but represented as the worthy tutor of Alexian. The former had received from the latter a treatise of his own, on the principles of the young prince's education.

'How happy are you, my dear Sylvinus! you escape, by thinking, from the horrors which surround us: you envelop yourself in your principles; you take refuge in literature. While the storm roars round us on every side, you cultivate in peace this young plant entrusted to your care, and under the shadow of which we must one day repose. You open its flowers, you prepare its fruits. You create an avenger, a prop for humanity, under the very eye of her most cruel enemy. Alex-

ian shall be the consolation and the delight of the world, of which Heliogabalus is now the reproach and terror. That which the senate, that which the people of Rome are no longer able to accomplish for themselves, thanks to your guidance, a young hero shall execute. He is the only man whom I can trace out in the midst of a host of slaves. He has drawn from the study of the Greek writers, whom you have committed to him, this premature magnanimity which promises us an Epaminondas. He will unite with it the soul of a Cato,—With avidity have I just devoured the treatise you have composed for him. This treatise on the Augustal institution is a subject altogether new. You have concentrated, as in a luminous focus, all the multitudinous rays of that philosophy to which we owe our Trajans and our Marcus-Aureliuses. You have selected, purified, embellished the maxims of the Athenian and Roman moralists. You have done for political, what I have done for civil law. You have reduced the science of princes to a small number of axioms founded on the purest reason, and whose results are fertile and immense. Perhaps the whole might yet be reduced to a single word—*to will what is good.* He who *wills, performs.*—I am going to communicate, or rather to present this treatise to the august Mamæa, since you have given me permission. She has a soul in unison with your own. Its principles are by no means new to her. Let us confirm her in this purity of sentiment. Let us multiply barriers around her, at whose foot the corruption by which she is encircled must fall without reaching her.—O! my dear Sylvinus! Mamæa is at present virtuous. If, on some future day, the intoxication of power (alas! what numbers has it not corrupted!) should deprave the severity of her manners, I will recall her to herself by making her re-peruse your writings.—Do not let us deceive ourselves, Sylvinus: the epoch in which Alexian must be raised to the empire cannot be distant. By what means I know not: for we have reached that point whence we cannot be rescued from tyranny but by herself. At this epoch, believe me, it will be the skilful Mamæa, who, in conjunction with Mæsa, will hold the reins of government. Alexian is extremely young; and respect for his mother is the prime virtue she has inculcated on him.—Thanks to your philosophic conversations, to the virtuous counsels of respectable senators; thanks to their own principles, we have nothing but what is great to expect from these illustrious women. Nevertheless let us watch; and foster from time to time the fruitful seed implanted in their bosom.—Your treatise is a lesson still more useful to the mother than to the son. Never may she wander from the principles of wisdom it contains!'

Thus educated, we already pre-conceive much of the cha-

racter of Alexian: it is delineated at full length in Letter VII. from Sylvinus to Mamæa.

'I, first of all,' says he, 'pause to contemplate those exterior traits, that physiognomy which reveals the secret dispositions of the soul—never was there a form more deeply imprinted * with the sacred character of virtue than that of my pupil. Benevolence unites with austerity on his countenance—it is the happy alliance of vigour and grace. His eyes glisten with active fire, humanity breathes *(respire)* on his forehead, and tranquillity in his smile. His make is tall, well formed, and robust, his attitude firm and masculine; and, what is more striking still, under this severe but tempered appearance he conceals a mind the most soft, a heart the most tender. He, in some measure, resembles the gods whom we begin with fearing, and finish with adoring.—His memory is prodigious, and ever present; his vivacity, though extreme, is well moderated; nothing can equal his penetration. To all these gifts of body and mind, he adds that which still embellishes and augments them—a sensible heart; the life of the meanest citizen will ever be sacred to him; he will govern by clemency.—These qualities, which he has received from nature, he has developed by philosophy: he is already familiar with that of the Greeks, our masters in ethics, as well as in the arts, and who first founded politics on the basis of justice. It is on this account, perhaps, that Alexian prefers their idioms and their authors. In effect, he is less skilful in the Latin than in the Greek tongue; either that the former ravishes by its native charms, by its perpetual elegance, by its richness, by its flexibility, by its everlasting harmony; or, that he prefers conversing with the great men of Athens and of Sparta still living in their works, to the degenerate successors of those of Rome. He has, moreover, put into verse the chief events of their lives.—The study of the polite arts attempers these sublime meditations; from the example of Themistocles and Epaminondas, Alexian has cultivated music; yet with a suppression which I cannot but approve, he has never exercised this talent but in his private apartments: he never parades with it on the public theatre, like our comic emperors. Instructed in the art of our Apelles and our Euclids, like our ancient chieftains, he already studies countenances and prospects, as well as draws plans. The science of numbers, indispensable in the military art, is not less so in the cabinet. He will learn to discriminate, to analyse, to estimate all the elements of the real grandeur of states, elements concerning which we are so often deceived, for want of

* In the original, *plus éminemment empreinte*, 'more *prominently imprinted* or *engraven*—a phraseology for which we thought the Irish had obtained an exclusive patent.

having appreciated and combined them according to their just value. And here I ought not to conceal one defect—but it is the only one—of a mind greedy after knowledge. I pardon it, on account of his extreme youth; and experience alone will cure him of these chimæras. Bewildered by a vain science, he has plunged himself into the shades of judicial astrology: he has composed a treatise on divination: he consults and projects horoscopes: he believes in fatality. But even this error is that of men destined for great things; and by how many qualities is it not atoned for! Frugality, temperance, punctual discharge of duty, respect for the good, abhorrence of the wicked, private economy, public generosity, prudence, and courage: these are all his own!'

The whole bank of virtues or vices being before him, every dramatist or novelist, in the creation of his hero, is at liberty to draw upon it for good or bad qualities, as he pleases; and those who are not minutely acquainted with the real character of Alexander Severus may think that the present author, in the article of mental and moral excellencies, has indulged in this liberty with no unsparing hand. Yet so truly virtuous and enlightened was that admirable prince, that the character before us but little, if in any respect, exceeds the truth; and his present biographer is, in almost every instance, countenanced by some prior historian who has treated of his reign. It is not, perhaps, so easy to defend him as to the necessity of so minute a detail of his corporeal and mental powers, of his height, features, and figure, in a private letter to his mother. We remember an observation of the present lord-chancellor, delivered in Lincoln's inn hall, after a long, elaborate, and witty reply from a gentleman who constitutes no part of the bar—that it was possessed of no small degree of merit, but appeared rather directed to the overflowing crowd of by-standers, than to himself: the observation may, we fear, with equal propriety, be applied on the present occasion; in which this most excellent character of a most excellent prince, however faithfully drawn, and minutely detailed, appears far less designed for the information of his mother, to whom it is immediately addressed, than for that of readers at the distance of about sixteen hundred years from the period in which it is pretended to have been written.

The letter which succeeds, forms a perfect contrast, and gives, as may well be supposed, a history of the infancy, education, and character, of Heliogabalus. Through this disgusting narration, we need not, nor can consent to follow the author, who makes him first of all the slave of moral turpitude, in consequence of his initiation into the priesthood of the sun, whose pontiff, as already observed, he was afterwards elected, and whose priests and priestesses were adepts in every species of

debauchery and concupiscence. There could surely be no necessity for entering into the subject with so much amplitude; and we disapprove of the narrative, on not less than three accounts: first, because such descriptions, be the ultimate object what it may, have in themselves an evil tendency; next, because such obscenities, as applied to the temple of Emesa, are by no means countenanced in history; and lastly, because it forms a sort of apology for the dissolute and libidinous life of this abandoned emperor, and diminishes, in a considerable degree, the horror which the ingenuousness of the juvenile mind naturally experiences, at the idea of native and voluntary depravity. In effect, both princes were devoted to the same deity, and educated within the precincts of the same temple. Whatever, therefore, were the seductions to which the one was exposed, were those to which the other was exposed equally; and it is just as unfair to the character of Alexander Severus to insinuate that he became virtuous, because he had an education that would not suffer him to be otherwise, as to represent Heliogabalus becoming vicious, through perpetual seduction, and the force of example.

Unable to enter into all the private debauchery and public orgies of this imperial delinquent, we shall transcribe the following narrative, in consequence of his having failed in his attempt: it refers to the latter period of his reign.

'Aquilia Severa, Vestal, to Mamæa.

'In the name of the gods and by their supreme majesty, by the sacred fire which I feed on the altars of Vesta, in the name of offended religion and public modesty outraged, grant me an asylum in your palace: it may, perhaps, be more respected than the sanctuary of any other divinity. I fly for refuge to your virtue. Will Heliogabalus dare, if you place yourself before me, to select me for the companion, or rather for the victim, of his infamies? He nevertheless has dared to propose to a virgin, devoted to the worship of the gods, to enter his impure bed: he offers me the title of empress, as if he were able to annul that of Vestal. Listen to his misdeeds:—

'I was watching one night near the sacred altar: my holy hands rekindled its fires: they threw forth nothing but pale sparklings. O unlucky presage! the flame appeared livid and dying. Doubled was the mysterious obscurity of the temple: by the sad glimmering of the reflected rays which trembled from this melancholy light, I scarcely distinguished the images of the deity, who seemed to cast an angry aspect around her. Such presages, the darkness of night, the nods of motioning shadows, who followed every movement of my torch, itself on the point of expiring, the humidity of the place, which froze my senses already struck with terror, the hollow and monotonous echo of my steps, and even my own taciturn self-collec-

tion, all united to precipitate me into a most fearful dejection. I prostrated myself at the feet of the altar, my heart elanced towards the divinity, and I became consoled. A ray of light seemed to pierce through the shades: my soul swam in all the illusions of an ecstasy. In my devout enthusiasm, I seemed to feel myself blended with the deity, and absorbed in her bosom. A thousand flattering dreams, more ravishing than the delusions of those pleasures *of which I am ignorant*, lulled my ideas, and darted to the bottom of my soul a delicious intoxication, in which were intermixed tears, sighs, and I know not what subversion of my entire existence. I am confident that my features were then more animated: my bosom palpitated, and my whole frame trembled with an emotion which I was, nevertheless, fearful of losing. I seemed sensible of a crisis like that which is felt in a burning fever. Languor succeeded to the vivacity of this exaltation of all my senses, and I fell by degrees into a soft and profound sleep.

'What a disturbance!—I found myself struggling in impious and sacrilegious arms. A man, abusing a power which knows no limits, Heliogabalus, by dint of gold, of seduction, and, above all, of threats, had compelled one of the venerable priestesses to open the sanctuary to him. Already his unrestrained hand . . . . . My bosom was uncovered, my dress disordered, my veil torn from me. In the very face of the tutelary goddess of divinity, he proceeded....O gods! and ye lanced not your lightnings!—My piercing shrieks resounded, and lost themselves in the murmuring vaults: no voice replied, except a plaintive echo from the bottom of the sanctuary. The barbarian pursued, and pressed me as a kite descending on a dove. I fall: we roll together to the very steps of the altar. The ravisher was overpowering his prey, when, with an utmost effort, extending my arms, and seising hold of the altar, I overthrew the sacred tripod in my resistance. It fell: the fire was extinguished. At that moment was the wretch seised with deserved horror. You well know that an extinction of the sacred fire presages the direst calamities. Ah! unquestionably did it announce to himself the termination of an abominable reign, marked with the most execrable violence. Easily did I now disentangle myself from his arms: I reached abruptly a spot in the temple, where he could not expect to find me: I there heard him, weak as he had before been furious—for he readily passes from the excess of debauchery to that of superstition—I heard him lavish to the Divinity the profoundest prayers, and, with his forehead sunk in the dust, ask pardon for an outrage which he yet burned to consummate.—Indignant, elevated by a sense of my situation, I deemed it right to make that *response* which the gods would have responded themselves. I was leaning against a statue constructed for the delivery of oracles: the

artist had so dextrously contrived it, that the voice of a person placed in its interior produces a tremendous sound, multiplied by the deep cavities of a subterraneous echo. I inclosed myself in this statue, and I uttered this oracle:—"Tremble, villain! thine end approaches: a worthier mortal shall occupy the throne which is stained by thy crimes. The guilt of thy life shall be reflected on thy memory: thou shalt perish like Nero; and, more miserable still, shalt leave a name more infamous than even his."

'For a long time he remained silent, his face pressed against the ground, and in a manner thunderstruck. At length he arose, but trembling, but agitated by the Furies. He strove to speak, but could utter nothing more than sounds inarticulate, and cries of terror. He wanders, he raves, he feels lost in this temple, as in a labyrinth: the door was before his eyes—he perceived it not. A hundred times he re-trod his own steps; his knees tottered; he runs headlong against every object he meets. A blow at length pushed him towards the entrance: he beheld it, and ran off with curses. Presently afterwards one of his confidents re-entered with a torch, restored the lamp, re-lighted it, and retired. His emissaries have since brought me letters. How haughtily does he express his will! what a style has he made choice of! Every thing makes me believe that unworthy priestesses, corrupted by this infamous man, have assisted his schemes.—No: the state in which I found myself prior to his attempt was not natural: they must, by a perfidious philter, have striven to disorder my senses. Ah! supreme gods! if they have betrayed me!—I have but a confused idea of all that passed at first: I cannot even in thought trace back the succession of every object: my memory and my modesty are equally alarmed. Can I have surrendered either the one or the other? This transaction, in which I suspect both my collegues and the emperor, compels me to throw myself at your feet: save me!'

The two letters that follow, give an account of the prosecution and result of this sacrilegious intrigue. It does not appear that the person of the fair Vestal had been violated: but the emperor was too bold a gallant, and too well versed in the mysteries of priestcraft, to be deterred from the accomplishment of his libidinous intent, by any thing that had hitherto occurred. By threats and corruption, he easily obtained subsequent introductions to the presence of the consecrated maid; and finding, with respect to herself, all entreaties and menaces alike unavailing, he at length, in a fit of revenge, has recourse to the pitiful expedient of publicly accusing her to the whole college of the priesthood of having suffered the Vestal flame of the temple to become extinguished, and to be re-lighted by a stran-

ger's hand. Of this execrable crime, under the direction of so truly-generous and noble-spirited a prince as Heliogabalus, she is of course found guilty, and sentenced to the common punishment of being buried alive; when the emperor himself, with wonderful disinterestedness, steps forward to avert so tremendous a punishment, and insists upon raising her to the imperial throne by a public marriage. Deprived of a will of her own, the unfortunate Vestal is compelled to assent: the marriage is consummated; and the lust of the monster being gratified, consistently with his usual caprice, she is instantly repudiated, in order to make way for another favourite.

His perfidy, his debauchery, his vile and besotted selfishness, cannot, however, triumph for ever. The people despise him; the senate hate him; and, what is of far more consequence still, the prætorian bands declare against him. His numerous plans to murder his avowed successor, Alexian, uniformly fail, through the circumspection of those to whom he is entrusted; and at length, consistently with historic truth, in a fit of popular fury, he falls a victim to his own tyranny and lasciviousness; and is murdered, with a thousand stabs, in a filthy ditch, into which he had run for protection.

'His body, after having been dragged through all the streets of Rome, and mangled by an indignant people, was at last thrown into the Tiber; his name was struck out of the list of public feasts; and his memory consecrated to eternal infamy.'

Alexander Severus succeeded, of course, to the empire, amidst the gratulations of the senate and the unbounded plaudits of the vociferous citizens.

Such is the subject, and such, so far as we have been able to analyse and give specimens of it, the execution of the historic novel before us. It is not deficient in interest: but a much larger portion might have been added. The period is highly propitious: but the writer is scarcely competent to the task he has undertaken: we should like to see it in abler hands. For a regular drama, or embellished history, it affords ample scope; and we scarcely know in which it would succeed best.

ART. VIII.—*De Origine et Usu Obeliscorum, &c.*

On the Origin and Use of Obelisks. By George Zoega. (Continued from Vol. XXXVII. p. 495, and concluded.)

THE third chapter of this work, to which we now come, is assigned to the consideration of Egyptian pillars; and obelisks, as originating from them. Concerning these, however, a contrariety of opinion hath existed. Kircher, and others who have followed him, on the authority of Arabic writers, maintain,

that the obelisks were those pillars, or Hermetic columns, on which, Jamblichus asserts, the science of the Egyptians, whence Pythagoras and Plato drew their philosophy, was inscribed; whilst Pauw, with most later writers, denies that obelisks and pillars had any thing in common; from thinking that in the former, the figure was the chief object of regard, but in the latter, the inscriptions. Our author, notwithstanding, refers to the opinion he had repeatedly delivered, that the στηλη, or pillar, included the obelisk, inasmuch as every cippus, column, or table, which the Egyptians erected with inscriptions, was comprehended under it; the term *obelisk* being applied to quadrilateral pillars, or to such as had four sides, which, imperceptibly diminishing, were conspicuous from their height, and either consecrated to the gods, or placed within temples. Having accumulated various evidences to confirm this opinion, and adverted to the use of pillars among the Greeks, which he shows to have been chiefly monuments of stone, but not very large, containing an inscription, and sometimes decorated with sculpture, he points out their application to sepulchral purposes, roads, boundaries, doors, judicatories, and temples, tablets with memorials of the dead, the great exploits of cities, or illustrious individuals, the crimes of offenders, the limits of districts, leagues, laws, precepts of morality, the praises of the gods, or commemorative vows. After adducing, from the ancients, examples of each, he concludes the first section with observations on the κυρβεις, and a notice of documents attesting cures, in the Serapeum at Alexandria.

The second section begins with suggesting a resemblance between the Greek Hermæ with inscriptions, and the Egyptian mummy-like statues with hieroglyphics. These characters indeed were inscribed in Egypt to almost every object and purpose. It is to be observed of ancient authors, that they have written more accurately on the subject of pillars than of obelisks. The former, presenting inscriptions, were evidently erected as boundaries of kingdoms, or trophies of victory. Sometimes they were placed in front or at the entrance of temples, and were inscribed either with laws or intimations that concerned the utilities of life, the praises of the gods, or historical records. Others in shrines or caverns contained topics of deeper research.

Of the first sort of these pillars the most famous were those of Sesostris, conterminal with Syria and parts of Ethiopia. The consideration of these leading to the inquiry when Egypt began to be inhabited, our author regards that country as receiving colonies from Arabia, who were shepherds; and others from Ethiopia, who were tillers of the ground. The former he assigns to the Pelusian marshes and part of the Delta, with Babylon and Heliopolis, as far as the middle of the Heptanomid district.

While Thebes and Abydos, with many towns in the Thebaïs and Delta were built by the Ethiopians, who waged war, with various success, for many ages with the shepherds. To this date the history of Osiris is referred, who, coming a stranger from Ethiopia, is said to have improved the state of agriculture by the introduction of new inventions, and the communication to the Egyptians of other arts which greatly meliorated their condition. At length, however, being treacherously circumvented by Baby, chief of the shepherds, whom the Greeks call Typhon, he gave occasion to those mournful rites which became so conspicuous. After this the Thebæans prevailed, built Memphis, and took from the shepherds not only Heliopolis, but also Pelusium, or Abaris. But, from being divided into many cities, connected by no federative band, nor in amity with each other, they were often exposed to invasion both from the shepherds of the Delta, and the Arabs, and sometimes rendered subject to them, till at length Sesostris, or Sothis, son of Amenophis, retaking Pelusium, compelled the shepherds to betake themselves to the marshes, or to migrate into Arabia and Syria. Sothis having extended his arms into Palestine with success, returned into his own country, and was constituted the general head. Reducing the several cities of Egypt into the form of one republic, by means of laws which he pretended were communicated from the ancient divinity of the Egyptian priests through Hermes, he fixed, with the universal consent of the people, the rights and prerogatives of sovereign and subjects, and defined, more accurately than before, the duties of the various classes. As a precaution against incursions from Arabia, he built a wall on the isthmus of Heroöpolis, repressed the invasions of the Ethiopians, equipped a fleet in the Arabian gulf for trading to India, and, by cutting canals through all its prefectures, rendered Egypt more healthy and fertile. His successors, under the influence of his laws and institutions, exerted themselves in improving their dominions, cultivated the arts of peace, adorned their cities with edifices, and thought not of extending their territory; except that Mendes, or Osymandyas, who has been confounded with the Memnon of Homer, appears to have repelled the Arabians, Syrians, and Ethiopians (denominated by the later Greeks who have touched on the Egyptian affairs, Indians and Bactrians); and also that Sesac, who was probably the Sesonchis in the twenty second dynasty of Manetho, called by the Greeks Asychis and Sasychis, took Judea, and plundered Jerusalem: for our author does not admit the condition of the Egyptian empire to have been such as to render credible the mighty expeditions attributed to its kings, nor the conquests of such distant provinces as have been ascribed to them, till, by the reform of the republic under Psammetichus, having arrogated to themselves dictatorial power, through the efforts of their native

forces, in conjunction with provincial troops, the kings of Egypt commenced their attacks on Asia, the islands, and Cyrene, and, having subjected Phœnice and Cyprus, brought the arms of Persia on themselves.

The columns therefore, supposed to have been erected to denote the power of their ancient kings, and the limits of their empire, were called *pillars of Sesostris*. Those in Palestine, thus named and mentioned by Herodotus, M. Zoega considers as erected by this prince; but entertains doubts concerning others in Ionia, attributed to the same king, whilst the pillars of Sesostris in Ethiopia he admits to have been erected by Egyptians, who traded thither, but not by Sesostris himself.

Of Osiris it is remarked, that he undertook no expeditions, that excepted from Ethiopia to Egypt. By him the Egyptians were brought to more cultivated life, through the arts he communicated to them; and from him their republic was established on the basis of legal institution. Hence, to him those pillars are assigned which were inscribed with moral or economical precepts, and in honour of the gods.

The next pillar adverted to is that of king Technates, father of Bocchoris, as the only one of its kind. This contained imprecations against Mine or Mena, who was said to have led the Egyptians from simple habits of feeding into luxurious excesses.

Other pillars occur in great numbers, to which were committed the record of important occurrences, the history of Egypt and the adjacent regions, also of the Atlantis; and the temples of the Egyptians are said to have possessed pillars on which was engraven the universal history of the ancient world.

But the most celebrated of all pillars were those of Hermes, which contained the documents of astronomy, and astrology united with philosophy and theology, and are said to have been preserved in caverns and shrines. The ancient Egyptians acknowledged one Thoth or Hermes alone, whilst Manetho, to adumbrate two ages of sciences and the arts, pretends there were two. With Hermes, Anubis was conjoined, as the genius of the star Sirius, presiding over astronomy and predictions.

The notes to this section have respect to the pillars of Darius, Alexander, Ptolemy Euergetes, Bacchus, and Hercules, and contain also passages from ancient writers relative to Sesostris.

In arranging the different classes of pillars, our author begins with the portable ones formed of various substances, preserved in modern museums, instancing particularly one with two faces, of red granite, in the Barberini gardens, twelve palms high, decorated on either face with sculpture, and sacred to the god Ammon. He then adverts to others, inscribed with hieroglyphics, which were observed by Niebuhr in a mountain of Arabia.

Proceeding hence to the pillars properly styled obelisks, he points out the Mahutæan, Minervean, Mattheianian, Medicean, Borgian, and Albanian, as containing the praises of the gods, and belonging to those Osiridian pillars which were erected in sacred places; whilst the little obelisk at Florence, as also that in the Barberini gardens, on the summit of which is sculptured the figure of Hermes, is referred to the class of pillars denominated Hermetic.

The latter indeed was placed in a temple dedicated to the honour of Hermes, and deposited in its interior, like the small ones in the ruins at Thebes. A gradation is next marked from simply monumental stones to those of more extended height, and thence to lofty obelisks which were erected in temples, not so much to transmit remarkable events, as for their decoration; whence it happened, that they were sometimes without, as well as with, inscriptions. On these it is observable, that at both top and bottom are represented the forms of the divinities to whom they were consecrated. Of the Pamphilian obelisk it is remarked, that it was dedicated to Isis and her son Orus; and an explanation is offered of its summit, which terminates in the form of a pyramid. The same part of the obelisk at Wansted is held to have been dedicated to Osiris and Orus.

The obelisk of the Campus Martius is inferred from Heliopolis, the place whence it was brought; and, by the inscription, engraved by Augustus on its basis, is supposed to have been dedicated by Sesostris to the Sun and Arveris, or Orus, the genius of the Sun. In conformity with this conjecture, an explanation is attempted at some length, of the figures on the pyramid and base, but not to our conviction.

The Flaminian obelisk is likewise referred to the same divinities; and similar explanations are offered of the figures on its pyramid, capital, and base. In addition to this, it is observed that the Sallustian obelisk is chiefly a counterpart of the Flaminian, with some additional figure on the top and base of one of the sides relating to Osiris and Typhon.

Having considered the Lateran obelisk as consecrated to Ammon, or the Theban Jupiter, the figures on the pyramid, capital, and base, are explained, as before.

Remarks follow on the interpretation of Hermapion, in respect to the Flaminian obelisk, which is considered as an epitome of what had been expressed more at length in explaining the hieroglyphic characters inscribed on the obelisk.

The fifth principal division of the work treats on *the history of obelisks*, the first chapter of which contains an inquiry into their date. After considering what Herodotus, Diodorus, and Pliny, have observed concerning them, M. Zoega is forced to admit that the few notices, transmitted on the subject by the ancients, are obscure and dissonant. In examining, however, the style of

sculpture, he finds it to be of two characters, and thence concludes them to be of two ages. In pointing out the discriminations of each, he pronounces the more ancient to be terse, exact, and sober, while the other betrays an appearance of negligence, with somewhat of flourish. Conceiving the commencement of Psammetichus to be the intermediate period between both; the Lateran, Flaminian, Campensian, Mahutæan, Mattheianian, Medicean, Constantinopolitan, the two of Alexandria, the Heliopolitan, Thebæan, Philensian, are referred to an antecedent date; and to a subsequent, the Pamphilian, Barberinian, the Insular, Albanian, Borgian, Beneventine, with the Florentine, that at Wansted, and the Faiumensian. The Catanensiac, though not of Egyptian work, is placed in the same division, whilst the Minervean and Sallustian, though supposed to have been executed at Rome, are referred to the former.

M. Zoega considers the epoch of Sesostris as in a great measure a hinge to the history of all Egypt: but though exact precision concerning it be not attainable, he thinks it may be properly fixed to the fifteenth century before the beginning of the vulgar æra. From the rudeness of their workmanship, the Mahutæan, Medicean, and Mattheianian are deemed to be the most ancient obelisks now remaining. At Thebes, the custom of erecting obelisks in temples is said to have originated; but in respect to their founders, nothing more is transmitted than what Diodorus relates, that they were the successors of Busiris. Mesphres, who erected the first obelisk at Heliopolis, is said to have lived in the seventeenth century before the vulgar æra. Afterward four others, in which number that of the Campus Martius and the Heliopolitan are included, were added by Sothis, who was the same with Sesostris and Sethosis. The same king is asserted to have dedicated two obelisks at Thebes in the temple of Jupiter, which M. Zoega supposes are the two still standing at Luxor. To Sesostris succeeded the elder Ramesses, the author of the Flaminian obelisk. He was followed by Amenephtes, and soon after by another Ramesses, who erected at Heliopolis four obelisks, and a fifth at Thebes larger than all the preceding. This is now in the Lateran. To king Mestires, who was, perhaps, of the twentieth dynasty of Manetho, or first after the overthrow of Ilium, the obelisks at Alexandria are given. Of the following dynasty, Zmarres and Phius placed at Heliopolis two more obelisks, but without figures or inscription.

Of the second age, two obelisks are mentioned, and both also plain; one cut out by Nectebis, or Necho, son of Psammetichus, and carried afterwards to Alexandria; the other by Semenpserteus, son of Amasis, which was broken in removing, and is now placed in the Vatican. Those seen by Herodotus at Saïs, our author thinks, were placed there by Amasis, as was that at Faiume by Psammetichus.

His discussion upon the *second epoch of obelisks* is introduced by the position, that, after the capture of Egypt by Cambyses, the usage of erecting them ceased. The Lagidæ, however, decorated Alexandria with the obelisks of ancient kings. That of Nectebis was transferred by Ptolemy Philadelphus to the temple of Arsinoë; two others, cut out by Mestires, were set up in the temple of Cæsar at the port, perhaps carried thither by the last Cleopatra; and in the acropolis two more were erected by the Ptolemies near Pompey's pillar. To this section are added various references concerning it, as a note to the description of the sophist Aphthonius. Happily, however, from the vestiges of the dedication to *Diocletian*, discovered upon it by three meritorious young officers, the sagacity of Dr. RAINE has ascertained the *Pompey* to whom it owes its origin.

The obelisks of Axuma, an Egyptian colony in Ethiopia, M. Zoega is inclined, with Bruce, to suppose were erected by Ptolemy Euergetes; but a doubt raised by the largest of them, from the plate of it in Bruce's Travels, induces him rather to ascribe them to the Axumite kings, who were connected with the Byzantine by friendship and commerce, the style of their execution according better with the sixth century of the vulgar æra, than with the workmanship of the Greeks.

The third epoch calls our author's attention to the two obelisks which Augustus, on the capture of Egypt, carried from Heliopolis to Rome, and placed, ten years before the vulgar æra, in the Circus Maximus: one, as a commemorative ornament, and the other, for a gnomon in the Campus Martius, dedicating each to the Sun. Observations are introduced concerning the ship which brought them, and the ball on the tops; and it is shown that the obelisk of the Campus Martius was intended not as an hour-dial, but to mark the meridian. The basis of each is particularly adverted to. The third obelisk, brought from Egypt by Caius Cæsar, was dedicated to Augustus and Tiberius, in the circus of the Vatican. Observations also follow on its base, and the vessel which brought it. The notes under this section concern the journey of Strabo to Egypt; the effect of an earthquake on the Campanian obelisk, and the globe on the obelisk of the Vatican.

The most considerable in bulk of all the obelisks conveyed from Egypt, was that placed in the Circus Maximus, by the emperor Constantius in the year of the Christian epoch 357. This, Constantine, his father, had removed from Thebes to Alexandria, for the purpose of being sent to Rome. The mode of erecting it, and its base, are also remarked on.

Among the other obelisks carried to Rome, are particularly mentioned those which appear to have been erected in the Mausoleum by the Flavian family; and that in the Sallustian gardens, which was sculptured at Rome, about the time of

Commodus and Gallienus. The imitation of Egyptian pictures is stated to have been brought into Italy, along with the worship of the divinities of Alexandria: and the Roman Iseum to have been adorned with works of this sort, among which the Minervean obelisk is reckoned. Hadrian, however, attempted to introduce into the arts a new style of ornament in preference to the ancient Egyptian.—The opinion of Kircher, in relation to the Sallustian and Minervean obelisks, is offered in the notes.

Having particularised the Arelatensian obelisk, transferred by Constantine the Great, and the Constantinopolitan by Theodosius the Elder, our author proceeds to the ruin of the Roman obelisks; and, after pointing out that in the Vatican as the only one which kept its standing, observes that the overthrow of the rest is to be ascribed, rather to the intestine wars which raged in the city, than to the ravages of barbarians; there being no proof of their dejection by Totila, and the subversion of the Campensian obelisk is assigned to the time when the city was burned by Robert Guischard in 1084.

The *fourth* and last *epoch* includes the dates and circumstances of the re-erection of obelisks, and specifies that of the Vatican, transferred to the area of St. Peter by Sixtus V, in 1586, who also restored the Esquiline in the following year, and the Lateran in 1588. In 1589 the Pamphilian was erected by Innocent X; the Minervean in 1667 by Alexander VII; the Mahutean by Clement XI in 1711; the obelisk dug from the ruins of the mausoleum of Augustus, by order of Pius VI, was placed in the Quirinal area 1786, between the colossal statues of the Castors; as was also the Sallustian on the Pincian hill 1789. The obelisk of the Campus Martius, discovered under Julius II, was dug up by Benedict XIV, and restored on the Monte Citatorio in 1792.

The notes closing this section have a retrospect to John Antenorius the architect, and the Barberini obelisk that still lies prostrate.

The chapter which closes the work is occupied with *a chronological synopsis of obelisks*, according to Mercati, Kircher, and the author; followed by several pages of corrections and additions.

After the view we have now presented of this extensive research, it would give us much pleasure to examine many of its discussions; but from this we are unavoidably precluded. Against some of them we have much to object: most of them we highly approve; yet, on the whole, must lament, that, notwithstanding the labour and learning bestowed on the subject, we are, in respect to *hieroglyphics*, just where we set out.

The work however, on many accounts, does honour to the author; and, though he may have failed in the main object,

he has succeeded in many others, and certainly deserves the thanks and gratitude of scholars.

From his publication of the Coptic MSS. of *cardinal* BORGIA, which may shortly be looked for, we have reason to anticipate the completion of his success.

ART. IX. — *Voyage en Italie, par Frederic Jean Laurent Meyer, LL.D. &c.* 8vo. Paris.

Tour to Italy. By Frederic John Laurence Meyer, LL.D.

MEYER was bred at the feet of Gamaliel: having been instructed in ancient literature, in antiquity, and the fine arts, under the guidance of Heyne, he employed his leisure time in gratifying the desires which these instructions excited, and visited different countries.

'After surveying the various parts of Germany, he traveled through Switzerland, France, and Italy. He everywhere examined with accuracy, and preserved that philosophic view of objects which distinguishes the true observer. It is thus, in traversing Italy at a period very near to that in which it began to feel the shock of our revolution, he was able to preserve the particular features which then distinguished that beautiful country, and to draw a likeness which will, perhaps, be soon effaced from the memory of man. We find the same spirit in his Fragments on Paris, hitherto known by the translation given of them by general Dumourier, which are the result of the second tour Dr. Meyer made in France with his friend Sieveking, when the latter was sent to the Directory by the senate of Hamburg. He had before displayed his deep acquisitions by several geographical works of public utility, and in high estimation. The translation of his tour in Italy was executed by Ch. Vanderbourg, under his direction, during his last residence in Paris—a residence always dear to me' (the publisher Henrichs), 'since it is to that I owe the advantage of having formed a most intimate connexion with so distinguished a man.'

The work was originally published in German, under the title of 'Darstellungen aus Italien'—Delineations of Italy.

The author himself informs us that we are not to expect a complete systematic description of Italy.

'I wished only' (he adds) 'to bring together what I recollected of my travels in that beautiful country. I have chiefly painted the magnificent environs of Rome and Naples, as the great part of my residence in Italy was confined to them. I sketched the pictures in my journal on the spot, and completed

them on my return. I have finished each part with more or less nicety, according to my inclinations at the moment. In fact, the chief aim, in this place, is the impression which these objects made on my mind. I do not pretend to say that the point of view in which I examined them is the best chosen, or that my mode of examining and feeling them was the happiest.'

He informs us that the traveller in Italy cannot avoid comparisons of its ancient and present state; and that, of course, he is led to glance at events long since passed. On these his guides are the ancient classics, and the most approved authors who have treated of Italy. He says little of works of art, particularly of painting; for he thought 'the enthusiasm of an amateur, and some notions of theory,' not sufficient to enable him to decide on such subjects without copying from others. 'Another reason induced me to yield to this prudent restraint—it is no longer at Rome, but at Paris, that we now admire the chief productions of ancient and modern art.'—This reminds us of a German work lately published, designed to prove, that, whatever may be the prejudices of mankind, the greatest *robbers* are not, in reality, the *greatest heroes.* The work is singular in another view. The author speaks of the hero of one of Defoe's novels as a real person—*viz.* colonel Jacque. Hart made a similar mistake respecting Gustavus Adolphus, and supposed the fictitious adventures to be true history.

'Nothing' (adds the editor) 'is altered in this translation, though circumstances are changed;' and, while we feel for the man, he thinks that we may still blame the administration of the pope. The ill-treatment of Pius is, however, attributed to the Directory. The mode of appeasing 'the irritated manes' of the insulted old man, by ordering solemn obsequies, was reserved for 'the hero' of France, its saviour, &c. History will tell another tale, if history will deign to record such infamy.

Our author passed the Alps of the Tyrol, where all was winter. He soon, however, met the sun; and the spring smiled more benignantly as he proceeded. He successively passes Verona, Vicenza, and Padua.

'The most eager of my wishes' (he observes in this part of his work) 'has always been to see Italy. The idea that I formed of it at least equalled my desires. But how much was my expectation exceeded, when the real objects met my eyes! It is in the road which I pursued that the most exalted imagination feels its own insufficiency. Guided by the most exact descriptions, it seeks in vain to form a conception of the amphitheatre of Verona, or the Olympic theatre of Vicenza, or the magnificent palaces of either city. These grand monuments, which it first meets, show him the weakness of his efforts. At the

first view of these *chef-d'œuvres* of San Micheli at Verona, and of Palladio at Vicenza, the mean ideas brought from beyond the mountains are dissipated; and, in a moment, we are elevated by sentiment to conceptions of the beautiful and sublime. All the abstract ideas that we could form in the school of the Esthetie, all those of force, of grandeur, of harmony, and unity, that we could collect with labour, respecting the arts of design in general, and architecture in particular, Palladio and Micheli show alive and sensible in their works. Sight embraces, by a glance, objects of whose sublimity theory alone could never raise a conception.'

M. Meyer next proceeds to Venice; and we shall select a specimen of his descriptive talents from this part of his work.

'At each stroke of the oar, the prospect extends, and astonishment increases. The merchant-vessels, infinitely multiplying, pass and repass, and cross in every direction. The black gondolas glide between them with the rapidity of a bird. The pilots are clamorous; the gondoliers sing; the tumult of the city becomes every moment more noisy. You at last enter into the great canal, on whose banks are the fronts of superb palaces; and every thing then redoubles curiosity, or keeps alive attention.'

'The church of St. Mark, the portico of which is [*was*] decorated with the four famous antique horses, is situated in the great square of the same name. No one ever passes without a glance of admiration at these spirited animals. To see their untamed ardour, the fire with which they are animated, their noble elasticity, which nothing seems able to check, we can ascertain their original destination. They were doubtless harnessed, in representation, to the carriage of a triumphant general, perhaps to the chariot of the Sun. Who could have foretold how low their dignity would sink, and that, after thousands of years, the *chef-d'œuvres* of the Greek artist should be condemned to decorate the portal of a Gothic church, to be displayed in the midst of its numerous arches, its little towers, its contemptible columns, and innumerable mouldings?—singular constrast! The church itself which offers it, and the palace of St. Mark, form another almost as striking, with the superb edifices which front them; the Bank, the library of Sansovino, with the large granite columns of the smaller square which we perceive at its side, and with the island in which the magnificent façade of the church of St. George, built by Palladio, elevates its front.'

'On the first day of my arrival (it was Sunday), I was conducted, without the slightest hint of any extraordinary enter-

tainment, to the beautiful chapel of the Hospital of Mendicants. On my entrance, I heard a delightful symphony, which seemed to descend from the cieling—for I did not see the orchestra from which the enchantment proceeded. I soon however discovered, behind the narrow lattice of the tribunes, young girls in religious habits, who played on all sorts of instruments under the direction of one of their companions. What force! what precision! how exact the time! how surprising their taste and execution! I never afterwards heard any thing which resembled it, except at Esterhazy, when Haydn conducted, and at the opera at Naples, where was an orchestra of equal vigour, which united as many eminent perfections. The conservatories perform every Sunday spiritual concerts. Happy hours! I never neglected attendance during my stay at Venice; and it is to you, amiable girls! whose talents I still admire, it is to you I owe these pure enjoyments, which I have scarcely ever since found in an equal degree. I still hear, in fancy, that enchanting voice, which, in the motet of David, addressed to the Hebrew monarch the '*te diligo*' with the accent and yielding manner of the most lively tenderness; and which passed from the recitative to an adagio in a style which would have filled the least sensible heart with emotion, and drawn tears from the coldest old age. In another motet, the Sedecias of Anfossi, the prophecies of Jeremiah, and his imprecations, were sung by one of these girls with a truth and energy truly terrible, and which we cannot but once experience.'

Our author enlarges somewhat on Venice, and notices its constitution, customs, &c. He then proceeds to Ferrara, Ravenna, Ancona, Loretto, Tarni, and Narni. The dominions of the church are gloomy, unfrequented, and uncultivated. At Ancona, however, there is some commerce; and many Jews are converted, because the commerce of the Hebrews is greatly restricted. Yet, even in the dominions of the pope, the religious exercises were carried on with little fervour or interest; and, in the language of our author's *valet de place*, their devotions were only the striking of clocks. The idle, the abject superstition of the pilgrims who visit Loretto is described with proper contempt; but the country around makes amends for this unpleasant subject; and the cataract of Velino is well delineated. M. Meyer thinks that it has not those characteristic traits which would lead us to suppose that it was this which Virgil describes in the seventh book of the Æneid, or rather that the description wants the appropriate features of the cataract.

Rome is the next object; but to give the slightest account of this 'goddess of the earth and nations, to which there is neither equal nor second,' is impossible. All our author's enthu-

siasm is alive, and his descriptions are particularly warm and animated. Perhaps the following is somewhat overcharged. We select it on account of the theory, though we cannot cordially acquiesce in it.

'At the slow approach of the torches (for this farewell visit was by night), one might have thought that the Pythian Apollo descended from his pedestal and approached us, by the steady motion, without a visible cause, which we attribute to the gods. He seemed to raise his proud head, on which an eternal youth reigns, to dissipate the ancient night of chaos, and enthrone the day. It was not the irritated conqueror of Python, who, having bent his silver bow to destroy a vile and hideous monster, darts a look of resentment on his prostrate enemy: it was not the terrible and cruel judge of Niobe and her children: in fine, it was not the protector of Troy, who sends poisoned arrows into the camp of the Greeks. No! it was the true Phœbus Apollo, it was the God of the Sun himself, entering, with hasty steps, his immense career, to repair with his floods of light the life and the fertility of the universe. *It was the image of the first day, which enlightened the creation; of the first morning of the world.*'

There is, however, a sublimity in the idea that captivates us; but the refinement of the following passage requires no index.

'Let us terminate our view in contemplating the celebrated Torso, which artists study, and amateurs contemplate with rapture. It is Hercules deified, enjoying perpetual repose and celestial happiness. It seems, at least, that this was the intention of its author, and that he wished to represent his hero at the moment when, having terminated his painful career, he recalls the brilliant labours by means of which he has obtained immortality, and fully tastes a consciousness of his own greatness.'

The observations on sculpture are excellent; and we may notice the long and somewhat partial account of Angelica Kaufman, whose health was, it is said, broken by the destructive climate of England, and the disappointment of her hopes of domestic happiness in her conjugal union. She repassed the sea with a painter of architecture, 'the husband of her choice.'

The eighth chapter, while the author is still at Rome, contains the remains of its antique monuments; and, as the *vignette* in the title represents the remains of a temple dedicated to Jupiter Fulminator, we shall transcribe the author's description of those ruins.

'On quitting the buildings of the Capitol, we arrive at the Tarpeian rock. The formidable abyss at its foot, where crimi-

nals once met with an unavoidable death, is almost wholly filled with ruins and with houses. He who should now be thrown from it would at most risk a broken leg.

'On the brow of the hill, the Via Sacra extends; and the road by which the high-priests, who were to perform the sacrifice, ascended to the Capitol is now covered with sand. The remains of the ancient ramparts, designed to prevent the sand from falling down, are still discoverable. It has, however, hid the beautiful ruins of the temple built by Augustus, and dedicated to Jupiter Fulminator, of which we discover only the extremity, remarkable for the richness of the entablature and of the capitals. On the other side we perceive, among the elevated and tufted trees, the magnificent ruins of the Temple of Concord; eight columns of marble with their entablature. This temple was built by Camillus, then dictator, to consecrate the return of peace which he had happily re-established among the people after a sedition. It was here that the first men of Rome assembled, to deliberate on the affairs of the republic, and when solemn occasions called them to the Forum. It was here that Cicero pronounced his invectives against Catiline.'

The ninth chapter is on the manners of Rome, the faults of its administration, its pasquinades, the feebleness of the government, and the exhausted state of its resources. The tenth relates to the catholic religion, and its splendid festivals, contrasted with the unhappy state of the Jews at Rome. In this chapter is an account of the canonization of a most filthy disgusting beggar, and of the conduct of the priests on this occasion—a conduct most shocking to humanity; but, where the honour of religion is concerned, the priests of Rome are not men. Is is singular that the catastrophe is related with a '*not*' before the verb, as if, at Paris, it was dangerous to speak against the priesthood as well as at Rome.

The ignorance, the absurdity, and the infamy, of the Cicerones are described in the eleventh chapter; and the subsequent relate to the country in the vicinity of Rome. Our author travels over the Via Appia, now the Via Pia, since the Pontine Marshes are in part drained—an enterprise of considerable utility, though, from the bad management of those entrusted with the work, highly unpopular, and the source of great misery to the workmen from the unhealthiness of the soil, and to the Romans in consequence of the heavy taxes occasioned by the labour. The Appian way, covered with mud, reeds, &c. is again cleared; its injuries repaired, and bridges constructed where it is intersected by the canals. It cannot, however, be concealed, that the part drained often extends but a little way on each side of the road, and that the confines of the corn and rushes are only at a short distance. It is, indeed, uncertain

whether this work can be accomplished; for, strange to say! it is not yet known whether the Pontine Marshes be not below the level of the sea. The author pretty plainly insinuates, that the ignorance of the pope, and the knavery of the superintendants, have delayed, and indeed frustrated, the work.

Our author next reaches Naples by way of Terracina, the Valley of Fondi, and Capua: the contrast is striking.

'Let us, at last, leave the Pontine Marshes; let us enter the delicious environs of Terracina. What a contrast! Rendered gloomy so long by an aspect of nature poor and desolate, we arrive suddenly in a country where vegetation freely displays all her force and all her variety. A whole day was employed in traversing a gloomy and deserted valley. My senses were fatigued, injured by each object that struck them; the heat and the insects perpetually tortured me; and it was in the freshness of the evening air, by a road bordered with flowering shrubs, where the myrtle, the rosemary, and the laurel, intertwining, formed a natural fence, that I found myself half a league from Terracina.'

'See Naples and die!' say the inhabitants of this city to their visitors. Our author thinks that it is better to live, and enjoy the pleasures of this delightful country; this 'morsel of heaven fallen upon earth' (*un pezzo di cielo caduto in terra*), to use another of their proverbial expressions. Indeed Naples, Vesuvius, and the country around, are described with our author's most glowing pencil: but the ground has been often beaten; and, though the originality of M. Meyer's remarks might lead us to copy further, yet, as we hope to see this tour in an English dress, we must not be tempted to intrude on other claimants by extending our article beyond its just limits. Let us select, however, a part of his description of the prospect from the terrace of the convent of the Chartreux.

'To complete the beauty of the scene, imagine a horizon not obscured by a single cloud, not veiled by the slightest vapour. In no country of the world has the atmosphere so great serenity; in no region does the sun, either at its rise or setting, dart rays more pure. Here nature is always beautiful and majestic; whether the star of day, rising from the burning east, overtop the pyramid of Vesuvius, and enlighten at once the city, the uniform surface of the sea, the promontories, and islands, whose proud rocks rise from its bosom; or, in the moment of his setting, gild this magnificent theatre with a milder radiance; or that the moon spread her silver light over this sublime and interesting scene. But how imposing and terrible it becomes, when tempests raise the waves of the Gulph, and when bursts of thunder are a thousand times repeated by the

echo of its rocks; or when, in an obscure night, Vesuvius projects towards the heavens his torrents of fire, whose gloomy light is reflected by the sea; when his summit, surrounded by a thick smoke, darts his lightnings in every direction, and the floods of burning lava spread over his hollowed sides. Poets! where are the words—painters! where are the colours—which can trace a representation of such wonders?'

In the midst of scenes like these, the torpid Chartreux is lost in the contemplation of his own woes, or silent in obedience to his vows. 'How happy are you,' said M. Meyer, 'in thus inhabiting the most delicious country in the universe!' Breaking his silence, and gently raising his shoulders—'Yes,' said he, coolly, 'all our visitors tell me so. To them it is a terrestrial paradise: but we—*we* do not perceive any thing (*ma noi altri non sentiamo niente.*)'

We think no one can even *peruse* descriptions like these without sensation, unless as torpid as a Chartreux. It is with difficulty we can tear ourselves from the work: but we have reached our boundary, and it must be done.

ART. X.—*Annales de l'Imprimerie des Alde, ou Histoire des trois Manuce, et de leurs Editions. Par Ant. Aug. Renouard.* Paris. 1803.

Annals of the Aldine Press, or a History of the three Manucii, and their Editions, &c. 2 *Vols.* 8*vo.* Imported by Payne *and* Mackinlay.

THE author of these volumes, a Parisian bookseller, has rendered, by this publication, due honour to the subjects of his work, as well as an acceptable service to men of letters.

From the invention of printing to the present day, none who have practised the art can be considered as ranking higher than the first Aldus, and Paul his son. From an enthusiastic admiration of the best writings of Greece and Rome, they sacrificed the advantages of reputation and fortune to extricate them from the chaos into which the barbarism of eight hundred years had plunged them; and, not content with rescuing them from destruction, devoted themselves to multiply them, under various forms, for the purpose of rendering them universally useful. For the printing of scholastic treatises, or works of jurisprudence and mysticism, which at that time occupied almost every press, and filled every library, ordinary attainments and moderate abilities sufficed; but to break from the beaten track, and surmount the impediments inseparable from the first publication of ancient authors, and especially the Grecian, required more than common instruction, and all the activity of superior genius,

joined to a perseverance that nothing could withstand. Many a scholar, since the revival of letters, has acquired celebrity from the revision of one or a few volumes which have come down more or less altered; but these men are the only ones whose enumeration of editions, printed and corrected by themselves, comprehends a complete list of almost all the great works of ancient learning.

Amidst the perpetual labours and incessant attentions requisite during the long years of difficult and erudite editions which every month and week came forth from their press, these two indefatigable men found leisure themselves to cultivate letters; and have left more than one work which attested, at the time, their profound learning, and still enjoy the esteem they deserved.

In respect to the elder Aldus, and Paul Manucius his son, it should ever be remembered that they are to be considered in three distinct points of view; *viz.* as at the head of the literati of their time, as accomplished printers, and learned editors. The two last qualities have been often confounded; and often, adds M. Renouard, are printers praised or blamed for what belonged to their editors, not to them. The elder Aldus and his son not only united in themselves these different qualifications, but possessed likewise the talent, which is scarcely less valuable, of distinguishing merit, and thence appropriating the co-operation of persons best qualified to aid their exertions.

Of Paul Manucius it is observed, that, from constantly reading the works of Cicero, he acquired such purity and elegance of style as will cause his letters and prefaces to be always admired. His Commentaries on Cicero are in every one's hands who wishes to consult with advantage the father of eloquence; and his Treatises of Antiquity are separately less read, only because later productions contain them.

As to Aldus Manucius, the son of Paul, and last of this respectable family, M. Renouard confesses, that, were it not from his inheriting the Aldine offices, it might not have been remembered he had ever been a printer: but, though difference of taste gave his studies a different bent, his numerous writings —notwithstanding they were inferior to his father's and grandfather's—sufficiently prove his industry and learning, and justify, to a certain point, the commendations bestowed on him by many to whom his merits were known.

The history of these three learned printers, although so often mentioned, having been hitherto but incompletely written, M. Renouard,—who certainly is well qualified,—has undertaken, in these volumes, to record it. With this view, his researches have been directed to every quarter whence information could be drawn; and the result is, that he has presented to the public a very elegant, accurate, and interesting work.

The notice on the life of the three Manucii, M. Renouard informs us, would have been more extended—for it consists of only 133 pages—but that he judged the details relating to their books would be more advantageously placed under the respective articles in the chronological catalogue to which they particularly referred; and, we doubt not, every reader of his work will concur in this decision.

As portraits of these eminent men ought not to be omitted in this monument to their fame, that of the elder Aldus has been engraved from the wood-cut given by his grandson in the title of several editions in folio about 1580; and, from the characteristic features of the print, there cannot be a question concerning the resemblance. The head of Paul Manucius is given from an oval engraving in copper on the back of the title of one of the volumes of Cicero, in folio, of the years 1582-1583. These portraits are not less exactly than exquisitely engraved by the best artist in France, AUGUSTIN SAINT-AUBIN. That of Aldus the younger, which is of less importance, is, like his grandfather's, from a wood-cut presented by himself in the title of some of his editions. Of this, as also of the different devices in the Aldine editions, an excellent copy is given from the hand of the late BEUGNET, one of the best engravers in wood the art can boast of, and who, on this occasion, has evidently exerted all his skill to represent with exactness the original.

After having stated his difficulties and accuracy his undertaking required, M. Renouard thus closes his preface:—

'Je conserve l'espoir qu'au moins pour le petit nombre de ceux qui prennent intérêt à tout ce qui concerne l'histoire littéraire, mes veilles ne seront point entièrement perdues, que par ceux-là au moins mon livre ne sera point jugé *labor irritus et incassus:* et c'est à quoi je borne mes désirs. Passionné pour l'art de la typographie, pour tous les travaux qui tendent à conserver et à multiplier les productions du génie, je n'ai pu résister au désir d'élever ce monument à la gloire des imprimeurs les plus habiles qui furent jamais; et voyant du loin toute l'étendue de la carrière qu'ils ont parcourue d'une manière si brillante, y entrant moi-même, sinon comme imprimeur, au moins comme libraire, et donnant aux livres que je publie quelques soins d'éditeur, j'éprouve une satisfaction bien vive à payer mon tribut de reconnoissance et de vénération pour ces modèles qui, s'ils ne me laissent aucun espoir d'arriver jusqu'à eux, me tracent au moins la route que je dois suivre, et rapellent continuellement à ma pensée les devoirs qui me sont imposés.'

Of these two volumes, it will be requisite to observe that the former, and by much the larger, consists of the annals of

printing, extended through the lives of these three printers, presenting the title-pages of their several publications, with historical and illustrative notes, in which is comprised much curious, and, to bibliographical scholars, very interesting and correct information. Their history, succinctly related in detached lives, occupies the first part of the second volume; while the rest is devoted to the privileges granted to Aldus the elder—catalogues of editions published by *Andrew d'Asola*, and, at Paris, by *Bernard Turrisan*—an account of counterfeited Aldine editions, with an advertisement of Aldus to their authors—a catalogue of the Aldine editions classed according to their subjects—and a table of the authors whose works the annals contain.

M. Renouard has printed his work, in a very superior style, on three papers; and, as the impression is but small, it will, of course, be soon exhausted.

RETROSPECT

OF

FOREIGN LITERATURE.

FRANCE.

Histoire de l'Introduction, &c. A History of the Introduction of Sheep with fine Spanish Wool into the different States of Europe, and at the Cape of Good Hope; the present State of those Animals, their Number, the different Methods of rearing them, and the Advantages derived from them to Agriculture, Manufactures, and Commerce. By E. C. Lasteyrie. 8vo. Paris.—The states of Europe into which these sheep have been introduced are Sweden, Denmark, Saxony, Prussia, Austria, France, Holland, Italy, &c. The author points out the periods of their introduction, their present number, the quantity of wool employed in manufactures for home consumption or foreign commerce, the laws enacted in favour of their propagation, the obstacles opposed to those laws, and the advantages resulting from them to agriculture and commerce. The propagation of the Merinos is owing to the encouragement of the different governments. The eighth chapter relates to their introduction into France, and the advantages received from them; the ninth, to the late attempts of the English for the same purposes.

In the second part, the author relates the methods of rearing the Merinos in Sweden, Denmark, &c.; and adds a variety of observations on this subject, as well as on the methods of rendering the race more perfect.

Flore du Nord de la France, &c. The Flora of the North of France, or a Description of the indigenous and cultivated Plants in the Departments of the Lys, Scheld, &c. By F. Roncet, Officer of Health. 2 Vols. 8vo.—The author had already published a treatise of the less common plants which grow naturally round the cities of Ghent, Alost, Fermonde, and Brussels. He has again examined the two provinces of Flanders and Brabant; and the present volumes prove that his labours have been successful. This has been the employment of twenty-eight years; and it includes the plants which grow in the marshy districts of those provinces. At the head of his

work he has placed a botanical dictionary, and followed the system of Linnæus. The places where the different plants are found, with an account of their medicinal and alimentary properties, are added.

Annales du Muscum Nationale d'Histoire Naturelle. Annals of the National Museum of Natural History. Nos. I, II, III, IV. 4*to.* Paris.—We announce this excellent journal, from which we may glean some occasional intelligence, though, as separate memoirs, they seldom can be the subjects of particular analysis. We shall add a short history of the institution. The professors of the Museum of Natural History have agreed to meet once a week, mutually to communicate what may have occurred of an interesting nature in their respective departments, and to publish those observations which shall be approved by the assembly. There will be no difference in these annals from the memoirs of other societies, except in their rapidity of publication. The successive numbers will indeed be confined to natural history; but under this term will be comprehended whatever most remotely relates to it, and the means employed of adding to our knowledge in this branch of science. In mineralogy, we are to expect the labours of Hauy; in geology, or the natural history of the earth, those of Faujas de St. Fond; in chemistry, of Fourcroy; in chemical arts, of Brognart; in the botany of the Museum, of Desfontaines; in that of the country, of Jussieu. The culture and naturalisation of vegetables is entrusted to Thouin; the mammalia and birds, to Geoffroy; reptiles and fishes, to La Cépède; insects, shells, madrepores, &c. to Lamark; human anatomy, to Portal; comparative, to Mertrud and Cuvier; the art of painting and drawing the productions of nature, to Vanspaendonck. We have seen only the first four numbers, which contain many interesting articles; but even to copy the titles would lead us too far.

Nouvelle Théorie de la Formation des Filons, &c. A new Theory of the Formation of Veins; Application of this Theory to the Working of Mines, particularly those of Freiburg in Saxony. By A. G. Werner. Translated from the German, and enlarged by a Number of Notes, many of which were furnished by the Author. 8*vo.* Paris.—Werner is not a favourite with the English mineralogists, so that we are generally obliged to converse with him through the medium of an interpreter; for his works seldom reach this country in their own language. The present volume is a valuable one, and the result of twenty years of observation directed to the class and particular arrangement of minerals as they lie in the earth, particularly of veins, which, as subject to great varieties and changes, are of a complicated nature.

The new theory of our author is supposed 'to have filled a considerable hiatus in geognosy, to have thrown new light on the various revolutions which the mass of this globe has experienced, aad to have opened a vast field of observations and inquiries.' The whole is divided into ten chapters. The first is on veins in general; 2d, on the different theories of the formation of veins; 3d, the explanation of the author's new theory; 4th, proofs that the spaces which veins occupy have been originally clefts open on the top, and empty; 5th, new details and explanations of the proofs given, and of the theory drawn from them; 6th, proofs that the spaces which veins occupy have been filled from the upper part; 7th, answers to the objections that may be made against the theory; 8th, refutations of former theories; 9th, application of the new theory to the working of mines; 10th, a short description of the formation of the principal metallic veins in the district of Freiburg. We cannot enlarge further on the work in this place; and indeed the author's principal views may be collected from the titles of his chapters. We may add, however, that Werner is correcting his works on mineralogy, geology, &c. and that they will be published in succession.

Exposé des Températures, &c. Explanation of Temperatures, or the Influence of the Air on Diseases and the Constitution of Man and of Animals, and its Effects on Vegetation. By M. Chavanieu d'Audebert, Physician at Versailles.—This is only an abstract of a larger work submitted to the Institute, and comprised in three tables. In the first, the author speaks of the general properties of the air, and its effects at different periods of the day on organised bodies. In the second, he explains the state of each month in a philosophical and agricultural view. He then proceeds to the seasons, gives the state of the weather, and points out its influence. The annual epidemics next engage his attention. In one place he examines the succession of seasons, and their influence on each other; in another, the character of the whole year, resting on authorities of respectability, as Hippocrates, Sydenham, &c.

The third table contains what relates to the lunar changes, either on the state of the atmosphere, or on the crises of diseases; and the various data are accompanied with interesting observations. Passing thence to the nature of places and climates, he examines their exposure, and the division of the country. Cities, he remarks, have an artificial climate very different from that of the open country. Rain-water stagnates in them; evaporation is slow; and causes of humidity constantly recur. Many times, he adds, in Vienna and Paris, the severity of cold has been three or four degrees less than in the suburbs. We trust the whole work will be published.

Psycologie-Physiologie-Médecine-Chirurgerie. Psychological, physiological, medical Surgery, or psychological and physiognomonical Observations. 8vo. Liege.—We have selected this work chiefly to mention the system of Dr. Gall, who has affixed, somewhat whimsically, though not wholly without foundation, the seat of different passions in different parts of the brain, from observing peculiar enlargements of the skull concurring, somewhat steadily, with given characters. This work is of the same class; and a physiognomonic description of a famous criminal is added, who was decapitated at Lyons for constructing a trap into which a fruit-woman fell.

Considérations sur la Maladie des Femmes en Couche dite Fièvre puerpérale. A Consideration on the Disease of Lying-in Women called the puerperal Fever. By J. B. L. Routier, M.D. 8vo. Paris.—This work contains nothing new or interesting to the enlightened practitioner. The author's object is to show that it is not a fever, but a membranous inflammation. English physicians have long agreed in the same opinion. The practice is peculiarly trifling.

Mémoire sur les Causes de l'Hydrophobie, &c. Memoir on the Causes of Hydrophobia, commonly known by the Term Rage*, *and the Means of checking that Disease. By E. F. M. Bosquillon.* 8vo.—This short memoir, of thirty-two pages, was read at a meeting of the college. The author's object is to show, that the madness which follows the bite of a mad dog is never '*determined*' in man but by the effects of terror; and the doctrine is supported by some facts. It is, however, evidently without foundation.

De l'Electricité médicale. On medical Electricity. By M. Sigaud Lafond. With Plates. 8vo. Paris. — We speak of this work, not from any idea of its peculiar value, or from any opinion of the efficacy of electricity as a remedy, but chiefly to show the objects which employ the attention of our neighbours in this department. The author first gives a description of the usual effects of electricity on the pulse, &c.; but he adds, among these, 'an increased tone of the solids.' He next explains the different modes of electrization, and reduces them to seven—*viz.* the bath, sparks, irroration, frictions, insufflation, exhaustion, and shocks. The general principles on which the choice of each mode may be regulated are next added. The third section treats of the diseases for which electricity has been employed, according to the nosology of Sauvages. These are

* The term *rage*, one of the words for *madness*, is exclusively applied, in France, to *hydrophobia*. We have no similar exclusive term, and *madness* would be an improper one.

the same in which this remedy has been usually recommended; and he adds his own practice in its favour, as well as that of other physicians.

GERMANY.

Grundriss der Kreuter Kunde, &c. Elements of Botany. By C. L. Wildenow. 8*vo.* Berlin.—This is a third edition of a valuable work, and would not have claimed our attention, but to point out numerous changes it has undergone, and the important additions which it has received. The terminology is greatly enlarged by new denominations; the physiology of plants is corrected, according to the new systems; and their history contains the different discoveries of the present æra.

Die Kunst allerhand natürliche Koerper zusammlen, &c. Art of collecting all natural Bodies, preparing them for the Cabinets, and preserving them from Insects. By G. G. Zincke. 8*vo.* Iena.—This is a volume of little importance, especially since the Germans have lately translated the work of Nicholas, on the same subject, to which the translator Ch. Ph. C. Stein has added the particular methods employed by MM. Schaumbourg and Hoffman. As the latter author is not very generally known, we may, perhaps, be allowed to add, that he has taught us the method of preserving caterpillars, spiders, shelled animals, moluscæ, and zoöphytes.

M. Zincke fancies that he is the first author who has treated of this subject, and falls into many other errors, particularly in saying that the shells only of lithophytes and zoöphytes are preserved. In Mr. Ellis's collection, in this kingdom, many of the fishes *were* carefully preserved; and they may still be seen in that of Dr. Gerresheim, at Dresden. His method of cleaning shells with cinders and soap lye is not very scientific, as it injures the colour, and sometimes the texture, of the more delicate specimens; but many of his directions are highly proper and useful.

Lehrbuch der Naturgeschichte, &c. Elements of natural History, accompanied with two hundred and sixty Representations of the three Kingdoms of Nature, according to the System of Linnæus. 8*vo.* Potsdam.—We are not greatly pleased with these elements. Man stands alone, and proudly pre-eminent; and the mineral kingdom is the first part of natural history taught. The ideas inculcated are chiefly commonplace; and the author's object is to treat of natural history in general, of the particular properties of bodies, and their division. The classes are bodies unorganised and organised; the latter including plants, animals, and man. We do not approve of beginning with the unorganised substances; for the

varied relations of animals, their forms, their country, and their manners, are more interesting to the youthful mind than the history of minerals. The anatomy and physiology of plants are hastily passed over; while the description of man, and his organic functions, are detailed at too great length. The new discoveries are not noticed; and the cryptogamiæ, the insects and worms, are described as in works of forty years since. The style, however, is familiar, and the plates are neatly executed, and coloured with sufficient accuracy.

Iahrbuch der Naturgeschichte, &c. Annals of natural History, or an Account and an Examination of new Discoveries in this Science. By W. G. Tilesius. 8*vo.* Leipsic.—In compliance with our custom, we *introduce* the periodical works of the continent; though, from their number, we cannot follow each successive publication. M. Tilesius, in this journal, proposes to collect, 1. Accounts of new discoveries in zoölogy, botany, and mineralogy; 2. Descriptions and chemical analyses of natural bodies; 3. Chemical analyses of animal, vegetable, and mineral substances; 4. Descriptions of natural bodies, with relation to economy and technology; 5. New discoveries respecting bodies difficult to preserve; 6. Practical examinations of new species and varieties; 7. An account and analysis of new works.

The first memoir in this volume is entitled 'Inquiries respecting the Animals from which the Fables of the Syrens and other marine Monsters originated;' 2. 'Proofs that the Chinese Fisher is not the Pelecanus Piscator of Linnæus; nor the P. Carbo of Blumenbach.' Our author examined the fish at Lisbon, and thus characterises it as a new species of Pelecanus:—'P. chinensis, capite cristato, pileo nigro, cristâ pennaceâ pilei occipitalis recurvatâ.' The memoir concludes with some account of the Chinese fishery; 3. 'Memoir on the Œstrus, from the Linnæan Transactions;' 4. 'Description of a singular Species of Thetis, from the Atlantic;' 5. 'Observations on some Species of Medusa, from the Tajus and the Portuguese Shores;' 6. 'Descriptions of the phosphorescent Medusas found in the Straits of Messina,' from Spalanzani; 7. 'Description of a new Species of Chiton, from the Tajus;' 8. 'Of the Genera of Lepas and Chitons.' Three new species of the former are described; *viz.* L. fucorum, turris, and rhomboidalis.

Abbildungen zu Karl Illiger's Uibersezang von Oliviers Entomologie, &c. Figures for Charles Illiger's Translation of Olivier's Entomology, or the natural History of Insects, their Characters, Descriptions, and Synonyms. 4*to.* Nuremberg.—Though these figures are designed for Illiger's translation only, they are adapted for Olivier's work in the original, or any other

language; and, since Olivier's system is becoming popular, we are more anxious to announce these plates. The work is published in numbers, each containing six plates: nine numbers have already appeared, presenting fifty-four plates, and comprising a volume. The editor and engraver is M. Shirm of Nuremberg. This volume exhibits all the scarabæi described in the first volume of Illiger's translation, and the species lucanus, including that of passalus and scarabæus, or geotrupes, scarabæus aphodius, onitis, copris, and ateuchus. The German species are omitted, because they occur in Panzer's Fauna insectorum Germaniæ.

The text, which consists of 136 pages, contains only the Latin descriptions of Olivier, with a German translation. The German species are added; but the reader is referred to Panzer's work for the description. The volume concludes with an alphabetical table.

Die Geognosie nach chemischen gründsæzen dargestellt. Geognosy explained on chemical Principles. By Ch. Schmerden. 8*vo.* Leipsic.—The first part explains the theory of the origin and formation of the surfaces of the earth. It appears, from the spheroidal figure of our planet, and the arrangement of its mountainous masses, that the surface has been formed by the successive coagulation of fluid matters. The proof of this assertion fills the first part; and it is drawn from numerous examples of revolutions in the globe, and the arrangement of its internal strata. The second part contains the general classification of fossils, accompanied with observations on their origin, under the general heads of primitive, stratified, alluvial, and volcanic mountains. The volume is terminated by a memoir on the nature of mineral springs.

Geognostiche Beobachlungen auf Reisen durch Deutschland und Italien Geognostic. Observations made during Tours in Germany and Italy. By Leopold De Buch. 8*vo.* Berlin.—We have found these observations interesting; and the author appears to be an enlightened philosopher, whose remarks will contribute greatly to the knowledge of the different countries through which he has travelled. The first memoir contains a geognostic description of Silesia; in which M. de Buch explains the position of the mountains, classes their different strata, traces the course of the rivers, and adds the mineralogical history of the country.

The 2d memoir contains a tour through the countries of Berchtolsgaden and Salzburg; the 3d, a cursory view of the salt mine of the chamber of finances of Austria; the 4th, a barometric tour over mount Brenner of Salzburg, so far as Trent; 5thly, a parallel between the passage of mount Cenis and that of the Brenner. The 6th relates to the Perginn.

These five memoirs are much shorter than the first; and we regret that Italy should have shared so little of the author's attention. This work, however, merits particular regard on account of Werner's geognostic theory, which the author has taken for his groundwork. We trust that, at a future period, we may be able to enlarge on this system.

Entwurfiner Medizinischen Pharmacologie. An Essay on Medical Pharmacology on the Principles of the Theory of Excitation. By J. J. Loos. 8vo. Erlang.—Nothing can show more strongly the crude and vague ideas of the practitioners on the continent, respecting the science of medicine, than their eagerness in adopting the system of Brown. We notice, in this place, two German publications; and, not to break the subject, we may here announce an octavo volume, published at Florence, by signor Luigi Emiliani, M. D. entitled Analisi delle Proposizioni fondamentali della Teoria Medica de Brown.—(An Analysis of the fundamental Propositions of Brown's Medical Theory). M. Loos divides the Materia Medica into theoretic and practical, and explains the relations between medical substances and organism. 'The Materia Medica,' he adds, 'is not alimentary matter; and it does not belong to the pharmacopolist to point out the diseases in which a given medicine should be employed, because this method leads to empiricism:'—an excellent subterfuge to conceal ignorance; for Brown was no practitioner; and his followers, we suspect, are equally ignorant. The following definition is curious. 'Disease and its origin are founded on the causes of excitation, suddenly produced and fixed in the body by changing its reproductive force.' There are, consequently, only two kinds of disease, the hypersthenic and asthenic; the latter, divided into direct and indirect. The remedies are, consequently, asthenic; permanent exciters, and diffusible exciters. The classification, springing from this source, is wholly new; but we suspect that our readers will not be anxious for it.

Franks versuch einer theoretisch practischen arzneimittellehre, &c. Attempt at forming a Materia Medica on the Principles of the Theory of Excitation. By J. S. Frank. 8vo. Vienna.—Dr. Frank is one of the most zealous, and, at the same time, one of the most intelligent followers of the Brunonian system on the continent. He is also a practitioner of experience, and an exception to the censure which has occasionally escaped us: the present work was announced six years since in our author's explanations of the System of Brown. He is not, however, an indiscriminate encomiast. While he keeps a firm hold of the new doctrine, he is equally attentive to the experience of other physicians and to his own.

In the introduction, he attempts to correct our ideas of sedative, antispasmodic, and other medicines, according to the

theory of excitation. In the second chapter, he points out the inconveniences which arose from the former confusion, and the advantages of the present correction. In the third, he examines the question, how, and on what parts of the human body, medicines act? M. Frank here properly combats the vitality of the blood and other fluids, and shows that the nervous system alone is susceptible of irritation, and communicates it to the other organised parts. Where the greatest number of nerves unite, must, of course, be the most irritable part; and this is the stomach. In the fourth chapter, the author inquires, What kind of assistance can the patient expect from the physician? This assistance is the supply of what is wanting, and the evacuation of what is superfluous. Hence the classes of tonics, relaxants, and penetrating medicines or stimulants. These are divided into permanent, volatile, and fixed penetrants. Other evacuants are styled local. On the whole, M. Frank, as we have just observed, is one of the most intelligent of the Brunonians; and his work may be read with advantage by practitioners of any sect.

Annalen der Kuhpokenimpfung. Annals of the Cow-Pox. Published by Ph. Hunold. Nos. I, II, III. 8*vo.* Fürth.

Archiv für die Kuhpokenimpfung. Archives of the Cow-Pox. Published by L. Müller, F. Hessert, and F. Pilger. 8*vo.* Giessen.—We announce these two works, in which we find nothing peculiarly interesting, at this time, to the English reader. We observe doubts have arisen both in Italy and Germany respecting the propriety of vaccine inoculation, which, in each publication, are zealously, and we think, on the whole, satisfactorily answered by the respective editors.

Heilkræfte des thierischen Magnetismus. On the salutary Virtues of Animal Magnetism, described from his own Experience. By Dr. Arnold Wienholt. 8*vo.* Lemgo.—We notice this work from its curiosity rather than from the ability displayed in it, or the importance of the information which it conveys. Dr. Wienholt was one of its first promoters; but, since the French revolution and its consequences have turned the views of mankind to more interesting subjects, animal magnetism has been forgotten. Dr. Wienholt, with all the enthusiasm of a true believer, endeavours to revive it, gives directions with respect to all the mummery and quackery for which it has been distinguished, and pretends to cure epilepsy, diseases of the digestive organs, inveterate hysteria, obstinate deafness, cataracts, and gangrene. 'Magnetism,' says the author, 'consists in a communication of the vital principle, for which the patient must have a susceptibility, and whose effect continues no longer than the susceptibility remains; a remarkable circumstance, which shows why the patient is less suscepti-

ble of magnetism in proportion as he recovers his strength.' To enumerate the diseases, and to add the explanations, will be sufficient to show the weakness, at least, of its author.

HAMBURG.

Memorien über die Dænischen Finanzen. Memoirs on the Danish Finances. By C. H. de Eggers. 2 Vols. Hamburg.—We have inserted one publication of Hamburg, in our German list, from the language and the connection. This might have been, for similar reasons, a Danish work. As the purpose, however, for which we notice it, relates to Hamburg, we have separated it from either class.

These two volumes contain much interesting information respecting the Danish finances; but an analysis, or even a list of the subjects, is of too little importance to detain us. On examining the last volume, lately published, we were struck with the title of the concluding memoir—'An Examination of the Crisis of Commerce at the End of the Year 1799,' and shall offer an abstract of it.

The maritime war having concentred the commerce of Europe in the hands of the English and northern powers, while the French and Dutch colonies were captured by the former, the French were obliged to purchase the productions of their own colonies from strangers. These merchandises proceeded from England to Holland; thence to the Baltic, and, in this circuitous route, reached France. But, after the conquest of the Low Countries by the French, in 1795, Hamburg became the general depôt of the manufactures of England, and the productions of both the Indies. The peace of Basle, and the neutrality of the north of Germany, removed the obstacles which stopped the current to the south, and Hamburg furnished sugar and coffee to France, Switzerland, and even a part of Italy. The accumulation of merchandise lessened its value, and occasioned considerable losses; and these, *with the determination of the Bank of England to suspend its payments, contributed to draw the English funds from Hamburg.* The decree of the Directory against neutral vessels, left the English, who went with convoys, no rivals in commerce. They exclusively carried the merchandise of Hamburg, and the price of colonial produce was consequently raised 25 per cent. The Directory revoked their decree, which occasioned a fall of 50 per cent.; and, the early severity of the weather in the winter of 1798 detaining all the vessels in the Elbe, they arrived the following year, at once; and the place was overwhelmed with merchandise. The Portuguese fleet also arrived from the Brasils, with immense cargoes of sugar and coffee, which occasioned the ruin of many speculators.

ITALY.

Trattato degli Alberi della Toscana. A Treatise on the Trees of Tuscany. By Dr. Gaetano Savi. 8*vo.* Pisa.—The indigenous trees of Tuscany, and those of foreign countries which bear the Tuscan climate, are shortly described in the present treatise. Each tree is separately noticed; and its form, the soil most favourable to its growth, the period of its flowering, and the ripening of its seeds, the methods of propagating and improving it, are distinctly pointed out. The order is alphabetic, and the work is divided into three lists. The first contains the indigenous trees; second, those successfully transplanted in the Tuscan soil, as the nut, the chestnut, the cherry, and the apricot; third, those that may be easily transplanted into Tuscany, as they flourish in less genial climates. Each tree has also its botanic, encyclopædic, Tuscan, French, and English synonyms. These lists are preceded by general observations on the cultivation of forest trees; and to each species its usual and extraordinary heights are added, with their respective ranks, on three lines. The first class contains those that attain a height of from twenty-five to forty-five ells; the second, from twelve to twenty-five; and the third, from three to twelve. An ell is equal to an English yard and quarter nearly.

Teoria dell' Arte de' Giardini. Theory of the Art of Gardens. By Luigi Mabel. 8*vo.* Bassano.—The author confesses that he treads in the steps of Hirschfeld; and, indeed, we should soon have discovered it; for the only observations of importance are extracted from that author.

Institutioni di Medicina forense di Giuseppe Tortosa. Institutions of forensic Medicine. By Gius. Tortosa. 2 *Vols.* 8*vo.* Vicenza.—We have already observed that forensic medicine is much more cultivated on the continent than in England, and a subject of much greater importance. On a former occasion we pointed out the most useful works in this branch of the science. In the present volumes we find no material additions to what have been before published; and many parts of the subject have been already detailed more advantageously.

Storia della Febbre epidemica di Genova. A Description of the epidemic Fever that prevailed in Genoa in the Years 1799 *and* 1800. *By Giov. Rason.* 8*vo.* Milan.—A judicious description of an epidemic of the putrid kind, but which admits of little criticism or comment. The Genoese constitutions seem not to have recovered the effects of their destructive siege.

Del Chiaro-scuro per li Disegni d' Architettura. On the Clair-obscure in architectural Designs. Folio. Milan.—This work is adorned with twelve plates; and the first chapter treats of the direction of light on a horizontal and vertical plane, with a demonstration of the cube. The second of the manner of managing the shade, by means of a gradual division of the nearest solid bodies, relative to those the most distant from the points of view. The third chapter is on reflexion, and its force; of the angle of incidence and reflexion; of superficies; of double and triple reflexion; and of the absence of reflexion. The fourth is on light, and the shade of a cylindrical body; the fifth contains rules for finding geometrically a shadow thrown by any member of architecture or other solid body; sixth, method of making sections of circular bodies, as of capitals and bases, to determine the shadows. The work concludes with an explanation of a new order of architecture and of its principles.

Instruzione Elementare per gli Studiosi della Scultura. Elementary Instructions for the Students in Sculpture. By Francesco Carradori. Folio. With Seventeen Plates. Florence.—Few works contain so clear and explicit an account of the principles of sculpture as this before us. It is equally instructive for the student and the artist. The king of Etruria not only accepted the dedication, but ordered the work to be printed at his expense; and a great number of copies have been sent to the Academy of Fine Arts, to be distributed by the president to the pupils of the school. The remaining copies are left with the author, and the plates continue with the Academy.

Memorie di Mathematica, &c. The Mathematic and Physical Memoirs of the Italian Society of Sciences. Vol. IX. 4to. Modena.—The history of this society, compiled by the secretary, is followed by a list of members; eight eloges, among which we find an elegant tribute to the memory of Spalanzani; and the statutes of the society. Among some memoirs of less note, numerous astronomic observations, and some mathematic disquisitions, we find a geologic tour through the south of Italy, by Pini; two cases of dropsy, cured by a fall, communicated by Zeviani; a description of a volcanic district, discovered at Bergamo, by G. Mairone da Ponte; Inquiries on the reproduction of animals of cold blood, by G. Baronio; on local and northern auroræ, by P. A. Bondioli; on the resistance of fluids, by V. Fossombroni; on the application of mathematics to music, by G. Dall' Olio; and the resistance of canals to the force of the water, by G. Fontana. On the

whole, this is, in many respects, a valuable and scientific collection.

HOLLAND.

De Staatkundige handhaving, &c. The Solicitudes of the State for the Life and Health of its Inhabitants recommended and explained by Matthias Van Geuns, and translated from the Latin by H. A. Bake. Accompanied with some Account of the Author. 8*vo.* Amsterdam.—This work comprises three discourses of Van Geuns, pronounced in 1778 and 1787, on his dismission from the rectorship. The two first have the following title: 'De Civium Valetudine Reipublicæ Rectoribus imprimis commendandâ:' the third, 'Oratio de Providentiâ Politicâ, uno maxime adversæ Civium Valetudinis Præsidio.' We notice the present work, not only to recall the recollection of some of our readers to these admirable discourses, but to inform others of their existence, and to add some remarks on the additions of the translator. The observations of M. Bake relate to the advantages of a medical police; the preference of different kinds of corn to potatoes, as articles of food; beer considered as a national beverage of the Dutch; the influence of tea and other warm infusions on the health of the people; the injurious effects of spirits, and the enormous consumption of spirituous liquors in the Batavian republic; the consumption of beer and wine compared with spirits and the quantity of grain consumed in the distilleries, with the deficiency of bread and beer, which is the consequence. Some valuable improvements in medical police are described in the conclusion, which have been, we apprehend, in part adopted.

Geneeskundige Verordeningen, &c. Medical Ordinances published by the Executive Power of the Batavian Republic. 8*vo.* Hague.—The melioration of the medical police, alluded to in our last article, appears in these new ordinances. They are five in number. The first directs, that the practitioners of every branch of medicine who purpose to settle in any part of the republic shall present their certificates of examination; and forbids the sale of secret remedies, or their advertisement in the public papers. The second establishes eight medical departmental commissions; and the third contains their instructions. The fourth consists of an appeal to the physicians and to the public to assist in the inoculation of the small-pox till the effects of the cow-pox are better established. The fifth prescribes the form of tables to be presented to government on the progress of inoculation.

Benedicti de Spinosa Adnotationes ad Tractatum theologico-politicum. Ex Autographo edidit, ac præfatus est, additâ No-

titiâ Scriptorum Philosophi, C. Th. de Murr. 4to, *cum effigie Spinosæ.* Hague.—These annotations have appeared in a French translation, which, however, is now very scarce. It is probable that Spinosa wrote the notes, as well as the tract, in the Latin language; and the present publication is said to have been taken from an authentic copy. The editor has added much interesting information respecting the portraits of Spinosa; the writings, which may assist his biographer; and his works, whether inedited or published.

Among the unpublished works, M. de Murr quotes an apology addressed to his *quondam* brethren, the Jews, in the Spanish language, entitled 'Apologia para justificarse de su Abdicaçion de la Synagoga*.' Another unpublished apology is in the library at Nuremberg, entitled 'Religion de l'Homme conduit par la Raison éternelle†; 484 pages in folio. The letter of Leibnitz to Spinosa is accompanied with critical and explanatory observations; and the *Notitia Opticæ promota*, mentioned in this letter, is here inserted in the text. The reply of Spinosa to Leibnitz is preserved in the library at Hanover; and some lines are engraved, as a *fac-simile* of the writing. The volume concludes with a list of publications relative to Spinozism, among which are the cabalistic fragments published by Ben-David: but the editor proves this to be a supposititious work, meriting no attention. Spinoza was an obnoxious character, accused and punished for atheism. He was, however, by no means an atheist; and is said, at his trial, to have taken up a straw, saying, 'If there were no other sensible object in the world, this would prove the existence of a God.'

DENMARK.

Oekonomisches Handbuch für der Landmann und Gartenliebhaber, &c. The economical Manual of the Farmer and Gardener. By J. G. Bechstedt. Altona.—The author begins with an abstract of natural philosophy, in which he treats of the different species of soil, its cultivation, manure, the influence of the sun and moon on plants, air, water, vapours, fire, vegetation, &c.

The work itself is divided into two sections. The first treats of rural economy in general, of fallows, rolling, manner of tying the sheaves, sowing, cultivation and plantation of trees, inclosing ground, weeds, artificial meadows, planting forests, and of some useful economical plants, as saffron, woad, tobacco, flax, poppies, &c.

The second section treats of the cultivation of fruit-trees: but this part of the work is managed very carelessly: neither the

* 'An Apology in Justification of himself, for having abandoned the Synagogue.'
† 'The Religion of Man under the Guidance of eternal Reason.'

farmer nor the gardener will derive any advantage from the author's remarks.

Quinti Horatii Flacci de Arte Poëticâ ad Pisones Epistola, cum continuâ Exegesi selectis que Notis, adjunctâ Aristotelis de Arte Poëticâ, Græce, cum Notis criticis, Latine cum exegeticis. Edidit L. Sahl. 8*vo.* Copenhagen.—Instead of a preface, the author introduces his work with a commentary on the epistle, in which he remarks that Horace considered poetry as a kind of painting, and that all his directions are founded on this principle. After the preface, we find the text of Horace divided into twenty-eight precepts, with a continued commentary, and a paraphrase, in bad Latin, divided like the text, and accompanied with notes such as might be expected from a monk of the fourteenth century. The text of Aristotle, instead of notes, is accompanied only with some various readings from Victorius, Reiz, Harles, &c. The author seems unacquainted with the labours of the English commentators. Sahl has published also a new edition of Brunck's Sophocles, in which the notes are greatly abridged.

Marci Antonini Commentariorum Lib. XII, Græce ad Codicum MSS. Fidem emendavit, &c. J. M. Schltz. Antonini Textum Græcum, Interpretationem Latinam, et Lectionum Varietatem continens. Vol. I. 8*vo.* Sleswick.—This very critical edition has been amended, in consequence of the examination of many MSS communicated to the editor; *viz.* the Palatine, the Vatican, and some MSS containing fragments. Besides the extracts of Hoeschelius, which Casaubon employed, the editor has consulted five MSS in the Vatican Library, four in that of the Medici at Florence, one from Paris, one from Wolfenbuttel. With respect to editions, he could not procure the second of Basle, 1568: but thinks that it exactly agrees with that of Strasburg, 1590. We then meet with the Prolegomena of Gataker and Casaubon, with the opinions of other authors respecting M. Antoninus. The commentaries will follow in a second volume: but we find, in the present, observations on the various readings, and on the opinions of learned authors.

Neue Dænische Sprachlere, &c. A new Danish Grammar, for the Use of Germans; accompanied with a poetical Collection, and a Vocabulary, by L. H. Tobiesen. 8*vo.* Altona.—The bases of our author's work are the grammar of Abrahamson, published by Lange; and professor Baden's work on the Danish language, published in 1791. He has greatly shortened the former, and added a German translation of the rules, a list of synonyms, and a parallel between the construction of the Danish and German languages. The first volume only has appeared. The second will contain the collection and vocabu-

lary. We may add that M. Abrahamson has published a new edition of his grammar at Copenhagen, extended to more than seven hundred octavo pages, containing the general principles of grammar, etymology, and syntax; a collection of German idioms and proverbs, with equivalent Danish expressions. The Germans, to repay the labours of these authors for their service, have published a grammar of their own language for the use of the Danes, at Hamburg, in 8vo.

Frankreicht, &c. France in the Year 1803. *8vo.* Altona.—This collection has been published for some time, but only one volume has reached us; *viz.* France for the Year 1802, which concluded with some memoirs to assist the history of the late revolutions in Naples, and some letters from a German traveler in France. The articles of the present number, the first of the new volume, are, 1. Letters from an old man on the state of criminal justice; 2. On the finances of France, by Fievée; 3. Cuvier's account of the life and writings of L'Héritier; 4. Extract from a German traveler's letters; 5. Supplement.

SWEDEN.

Vetenskaps Journal, &c. A scientific Journal of Medicine and Surgery, published by S. Hedin. Stockholm.—One volume of this journal has appeared, with the two first sections of the second. We notice it, chiefly on account of one or two articles in the part of the second volume published, and to announce a work in which are occasionally inserted the memoirs of the Swedish physicians. The *Acta Medicorum Succicorum* did not, we believe, extend further than the second volume; and numerous journals, some of which have been published by M. Hedin, have succeeded. The immediate predecessor of the present was entitled *Vetenskaps handlingar fær lækare.* The articles we meaned to point out as interesting, though we cannot enlarge on them at present, are Schrege's 'Theory of the Placenta, and Nutrition of the Fetus;' Accounts of the very destructive 'Epidemic at Cadiz, Seville, &c.;' 'Attempts to prove that domestic Animals are capable of being vaccinated;' and 'Observations on a Disease resembling the Cow-Pox, which prevailed in 1801, in the Isle of Fuhner, among the Cows.'

Kongl Vetenskaps, &c. New Memoirs of the Academy of Sciences. Tome XXII, 4th Number; and Vols. XXIII and XXIV, 1st and 2d Numbers, from January to June of 1802. Stockholm.—The numbers are styled *trimestres*, on account of their being published every three months; so that four complete the annual volume. The last number of 1801 contained—1. The process used at Salzburg for bleaching and

dyeing cotton, by M. Scherbing; 2. Essays to determine, by astronomic and chronometric observations, the length of the Baltic, the true situation of the island of Gothland, and the longitude of many other places, by N. G. Schullen; 3. Statistic tables of Sweden, from the year 1772 to 1795 (8th number), by Nicander. One of these tables contains the number of persons who died in Sweden of different diseases, from 1775 to 1795: another, the number who have died in each district; and a third, the fatality of each disease in 10,000. The fourth article contains an account of some new Swedish lichens, by Acharius (the 8th number). These are the L. bellimi-florus, parechus cervicornis, cariosus, muricatus, and bicolor, which are described and engraved.

The king of Sweden has sent to the Academy the cabinet of natural history, hitherto kept in the castle of Droteningholm, which contains, among many of the collections of Hasselquist, a large Egyptian mummy.

The first number of the year 1802 comprises only three memoirs: 1. On the most suitable external form of cannons, to give an equal force and resistance to powder, by F. H. Chapman; 2. Observations on the morbus coxarius, by M. de Rosenkoeld; 3. Observations on the earth found at Yterby (the yttria), by A. G. Ekeberg.

The second number contains, 1. Botanical observations on the targionia hypophylla L., by Sprengel de Halle; 2. Experiments made with the inflammable albuminous schistus, to supply wood as a combustible; 3. Empyema, or observations on lungs wholly reduced to a purulent state, by Walbom; 4. Abstract of meteorological observations, made at Umea, in 1800, by M. Nazen; 5. Description of a kind of disease caused by the dust of the silk-worm moth—bombyx processionea. This disease has been observed by Linnæus, Fabricius, Bomare, Panzer, and Réaumur.

Bibliotheca historica Suco-Gothica, &c. Historical Swedish Library, or a Catalogue of the printed and inedited Works; of Memoirs and Treatises relative to Sweden, accompanied with Notes historical and critical: by M. Warmholtz. 8vo. Upsal. —We have already remarked that fifteen volumes of this collection are in the library at Upsal, of which seven have been published before the present volume—the eighth. Eight years have elapsed since the appearance of the last; and we are indebted for the continuation to professor Aurevillius, of Upsal. This volume contains a catalogue of the works and writings relative to Queen Christina.

We find not only the substance of the different works, but a great number of fugitive pieces, discourses, letters, coins, manifestoes, poetical pieces, &c. The titles of the works are ac-

companied by bibliographic or critical remarks. There are two works by the count Bisaccioni, entitled *Commentario delle Guerre succese in Almagna*, Venice, 1634; his *Memorie historiche*, Venice, 1642; and a third, *Delle Historie memorabili de' nostri Tempi*, in ten volumes, Turin, 1653.—This author contends, with many others, that Gustavus Adolphus was *not* killed at the battle of Lutzen, but assassinated with a pistol-ball from behind by duke Albrecht de Saxe Lauenberg. The true reason of his animosity to the king is not known; for the story, that he once received a blow from him, does not deserve the smallest attention.

The account of the history of the Swedish war in Germany, by Chemmhus, is sufficiently interesting. The first volume appeared in 1648, at Stettin. The second was attributed, but without foundation, to the chancellor Oxenstierna. The third, fourth, fifth, and sixth, were discovered in MS in the royal library of Stockholm. The critical observations on these works are generally drawn from other authors.

Among the MSS, we can only notice the following:—1. The heroic Actions of Bernard, Duke of Weimar, by his Adjutant de Grun, collected by W. C. Zorn, of Blopsheim, in quarto; 2. Annales Regni Sueciæ, 1628-1639, in the Library of Skogkloster; 3. Neugebauerus Diarium Obsidionis Bremensis; 4. Exel Oxenstierna Relatio de Administratione Regni sub minorenni Christinæ Reg. Ætate consignata, 1544; from the Stockholm archives of state; 5. Chronologia Danica inchoata a M. M' Petræo, deducta per C. Aslacium, et ab Olao Wormio ad 1648 continuata, in the library of the Academy of Upsal; 6. Supplement ul D. Christina memoirer foer Aeren 1681-1687, by the author of this Bibliotheca. This supplement relates principally to the administration of the country, whose revenues were assigned to the queen, to the negotiations of Christina with the court of Sweden, &c.

Bræfwexling. Correspondence. Vol. I, No. 1—5. 8*vo.* Stockholm.—Professor Giorwel, who, since the year 1746, has published many works on the history and literature of Sweden, seems to have resigned his literary career, and, from the year 1798, has published this collection, which he calls his last testament. The five numbers before us contain twenty-eight letters, which chiefly relate to the literature and history of Sweden, particularly during his own æra.

Among these, we find the letters of counsellor Warmholz, from the year 1750 to his death in 1785; of professor Linden, from 1763 to 1793; of the celebrated naturalist Linnæus; of bishop Ryzelius; of Dr. Balter; and of two under the fictitious names of Agrophilus and Urbicola.—The author's own letters are chiefly addressed to a friend in the country, and contain

many interesting accounts of the statue erected to Gustavus III; of the obelisk raised by that king to the citizens of Stockholm; of a monument in renown of the poet Kelgren; on queen Margaret of Navarre; on the character of Charles XII; on the Bibliotheca historica Sueo-gothica, the manuscript of which, consisting of fifteen folio volumes, has been sent to the Academy of Upsal. The last letters relate to the travels of the royal family, the death of the hereditary prince of Baden, and the genealogy of his house.

This amiable veteran will, we trust, continue his communications; and, as Sweden has for the last century been distinguished for its scientific communications, we trust it will not long be deficient in more strikingly elegant attempts in criticism and the belles lettres. Some dawns of more polished literature have appeared in the distribution of the prizes of eloquence, at the late session of the academy, when the first was decreed to M. Kegner, for a discourse tending to prove 'that old age is not a state of privation and pain for man, but of enjoyment, with a change only of objects:' the first prize in poetry was allotted to M. Kullberg, for his poem on old age.

RUSSIA.

Taschenbuch, &c. An Almanack or Port-Folio for the Friends of German Literature in Russia. 8vo. Riga.—This *vade-mecum* of German literature is only a history of the order of St. John, taken from Vertot. We take advantage, however, of this work, to add some observations on Russian literature, extracted from the best sources, though we have not the volumes before us.—M. Karamsin, author of the Letters of a Russian Traveler, has published an *éloge* of Catharine II, for which he has been handsomely rewarded by Alexander, to whom it is dedicated: it is translated into German by M. Richter at Moscow.

M. Karamsin has also published a journal since 1802, entitled the Advertiser. It contains translations from the German, English, and French journals, with some pieces from the editor and his friends. Two numbers are published monthly, each of 100 pages. Two other journals are published at Moscow—'The political' and 'The literary News of Russia.' The first was only a translation of the Courier of Altona: but, since the year 1802, some pieces have been inserted from the Minerva of Archenholz and the Political Annals of Posselt. Of this, a number appears every month. The second contains translations from the ancient and modern languages, extracts, poetry, &c. Two sheets are published weekly.

Very lately, 2 vols. 8vo, by Ismailow, have been published at Moscow, entitled 'A Tour in Southern Russia.' It is said to be

written in the manner of Dupaty, and contains curious accounts of Kiow, Pultowa, Cherson, Ocksakow, Odessa, and Nikolaew; of the celebrated Pallas, the Crimea, Astrachan, the colony of Hernhutters at Sarepta, &c. It may be considered as a supplement to the Travels of Sumarakow in the Crimea and Bessarabia, translated into German by Richter, who means also to translate the present work.

M. Richter, since the beginning of 1803, has published a periodical work, under the title of Russian Miscellanies, which will appear in the German language at Leipsic, in four numbers. The first contains fragments of the poem of the Rosciad, by Cheraskow; 2. Popular Russian tales; 3. A particular report of the state of modern Russian literature, accompanied with observations and anecdotes; 4. Anecdotes drawn from the Russian history; 5. Extracts from the best foreign journals.

A superb work is expected to be soon published at Petersburg, at the expense of the emperor, entitled 'The Journey of the extraordinary Russian Embassy to the Ottoman Porte, in 1793, or a Collection of Letters from a Gentleman of Esthonia to one of his Friends at Revel, by the Counsellor of the College of Reiners.' 3 vols. 4to, with plates. It will appear in the German, and be immediately translated into the Russian language.

ALPHABETIC INDEX

TO THE

AUTHORS' NAMES & TITLES OF BOOKS.

ACADEMIES of Vienna and Petersburg, Extracts from correſpondence with, ... 480
Academy (royal Iriſh), Tranſactions of the, ... 389
Account of experiments for drilling and protecting turnips, ... 355
Addington (Mr.)'s adminiſtration, Memoirs of, ... 350
Addreſs to parents and guardians on variolous and vaccine inoculation, .. 233
Advantages of female friendly ſocieties conſidered, ... 230
Aikin's edition of the Engliſh poets, 218
Aldine preſs, Annals of the, ... 569
Alfred's letter to people of England, 465
Alladin, Travels of, ... 116
Allingham's Marriage promiſe, ... 236
American, The, ... 237
Amiens, Official papers relative to treaty of, ... 456
Anacreon, Select odes of, ... 64
Analytical calculation, Principles of, 186
Annals of the Aldine preſs, ... 569
Animal food, Eſſay on abſtinence from, ... 116
Annual regiſter, Aſiatic, ... 144
Antony (St.)'s fire, Practical information on, ... 474
Apollonius Rhodius, Tranſlation of, 241
Appeal to archbiſhops and biſhops, 352
——— to ſociety of Friends, Examination of, ... 106
Argonautics of Apollonius Rhodius, 241
Articles (The XXXIX), Remarks on Kipling's pamphlet on, ... 228
Aſiatic annual regiſter, ... 144
Atkins on the relation between ſpecific gravity and ſtrength of ſpirituous liquors, ... 119
Attempt to inveſtigate cauſe of Egyptian ophthalmia, ... 354
Auguſtus and Mary, ... 358

BARNBY (Mrs.)'s Kerwald-caſtle, 478
Baſtard, The, ... 441
Bath, Hiſtoric and deſcriptive account of, ... 359
Bidlake's ſermon, ... 351
Birch on the medical application of electricity, ... 355
Bleſſings of peace, ... 100
Blagdon's Modern diſcoveries 118
Blagdon and Prevoſt's Mooriana, .. 117
Blaine on diſeaſes of horſes and dogs, 475
Boaden's Voice of nature, ... 236
Boardman's book-keeping, ... 119
Bonaparte's ſoliloquy, ... 471
Booker's poems, ... 114
Bookkeeping, Syſtem of, ... 119
Britain, Triumph of, ... 468
Briton's Warning voice, ... 470
Britiſh eſſayiſts, ... 295
——— monachiſm, ... 39
Bryant on ſome paſſages in Scripture, 314
Buttermere, Maid of, ... 358

CALCULATION (analytical), Principles of, ... 186
Cappe, Sermon on death of Dr.... 229
Carey's edition of Dryden's Virgil, 27
Carpue's deſcription of the muſcles of the human body, ... 354
Carrington (Lord)'s ſpeech, ... 480
Caſe reſpecting maintenance of London clergy, ... 120
Caſes of ſucceſsful practice of veſicæ lotura, ... 353

Cat, Viciſſitudes of a, ... 110
Catechiſm proved and explained, .. 230
Ceres, Teſtimonies reſpecting ſtatue of, ... 448
Chalmers on the late war in St. Domingo, ... 224
———'s edition of the Britiſh eſſayiſts, ... 295
Chancellor of exchequer, Four letters to, ... 346—Reply, 347
Characters (Public) of 1800-1, ... 80
Child of the foreſt, ... 115
—— (Poor)'s friend, ... 110
Chriſtian faith, ... 230
Chriſtianity, Eſſay on internal evidences of, ... 473
———, Letter to a noble duke on, ... 103
———, Mild tenor of, ... 351
Chronicle of Scottiſh poetry, ... 326
Claims of literature, ... 168
Clarke's Teſtimonies reſpecting ſtatue of Ceres, ... 448
——— View of the diſorganiſation of Europe, ... 428
Clergy of London, Caſe reſpecting maintenance of, ... 120
Cobb's Houſe to be ſold, ... 115
Cobbett to the chancellor of the exchequer, 346.—Reply, ... 347
Commentaries on the hiſtory of Italian poetry, ... 401
Componimenti lirici, ... 72
Conſiderations on neceſſity and expediency of ſupporting the dignity of the crown, ... 227
Convent of St. Michael, ... 237
Converſations in Italian, French, and Engliſh, ... 476
Converſazione moderna, ... 234
Conway, Vale of, ... 478
Correſpondence with academies of Vienna and Peterſburg, Extracts from, .. 480
———— with Reviewers, .. 239
Country gentlemen of England, Ode to, ... 467
Cowper, Life and poſtumous works of, 1
Cow-pock, Facts deciſive in favor of, 233 See alſo Vaccine.
Creaſer's obſervations on Pearſon's examination of report of vaccine pock committee, ... 108
Creighton's inquiry into the origin of true religion, ... 101
Creſcembini's commentaries, ... 401
Crimea, Travels in the, ... 177
Criſis of Britain, ... 467
Critical Review, Appeal to calm reflection of authors of, ... 359
——— reviewers' ſtrictures on Gifford's Juvenal, Examination of, ... 337
Crown, Neceſſity and expediency of ſupporting dignity of the, ... 227
D'ARNAUD's Lorimon, ... 477
Darwin's Temple of nature, ... 361
Delphine, ... 48
Denmark, Literature of, ... 586
Depravity of the human heart, Sermon on the, ... 229
eſcription of muſcles of human body, ... 354
——— and uſe of ſliding Gunter, 359
Dialogues between miniſter and pariſhioner, ... 102, 352
Diateſſarôn, ... 101
Dibdin's tour through England and Scotland 270
Dictionary, Ornithological, ... 330
Diſcoveries, Modern, ... 118
Diſcourſe on origin and progreſs of ſociety for promoting religious knowledge among poor, ... 352
Diſeaſes, Obſervations on increaſe and decreaſe of, 371—Examination of do. 474
Diſorganiſation of Europe, View of, 428
Divine inſpiration of Jewiſh ſcriptures aſſerted, ... 216
D'Iſraeli's narrative poems, ... 433
Documents (Official) relative to negotiation with France, ... 98
Δωδεκαεδρον, ... 239
Dogs and horſes, Treatiſe on diſeaſes of, ... 475
Domeſtic encyclopædia, ... 280
——— treatiſe on diſeaſes of horſes and dogs, ... 475
Downman's Infancy, ... 356
DRAMATIC.
Dramatic poems, ... 285
Female Jacobin club, ... 115
Houſe to be ſold, ... 115
Marriage promiſe, ... 236
Voice of nature, ... 236
Dryden's Virgil, New edition of, ... 27
Duke, Letter to a noble, ... 103
Durand's ſermons, ... 59

EARTH, Short view of natural hiſtory of the, ... 110
——— Thoughts on the formation of the, ... 119
Edinburgh pharmacopœia, ... 255
Effuſions, Patriotic, ... 472
Electricity, Eſſay on medical application of, ... 355
Embaſſy from Peterſburg to Conſtantinople, ... 177
Emigrant, The, ... 478
Encyclopædia, Domeſtic, ... 280
England, Epitome of hiſtory of, 234—key to ditto 234
——— Tour through, ... 270

Epidemic diſeaſes prevailing in London, Obſervations on,.....231
Epiſtle (General) to Quakers, ...353
Epitome of the hiſtory of England,234
key to blanks in, ...234
Eſſay on abſtinence from animal food, ...116
——on character and doctrines of Socrates, ...119
——on internal evidences of Chriſtianity, ...473
—— on medical application of electricity, ...355
—— on proximate cauſe of animal impregnation,.....355
—— on relation between ſpecific gravity, and ſtrength and value of ſpirituous liquors, ...119
Eſſays on population of Ireland,....226
Eryſipelas, Practical information on, 474
Eſſayiſts, Britiſh, ...295
Europe (State of) before and after French revolution,.....436
——-, View of the diſorganiſation of, ...428
Evans (Evelina)'s Pretty pilgrim...234
Examination of "Appeal to Society of Friends," 106
———— of ſtrictures of Critical Reviewers on Gifford's Juvenal, ..337
Extracts from correſpondence with academies of Vienna and Peterſburg, ...480

FACTS (A few) to ſhew ambition of France, ...349
——— deciſive, in favor of cow-pock, ...233
——— and obſervations relative to ſheep, wool, &c. 355
Faith, The Chriſtian,.....230
Faleoner's examination of Heberden on the increaſe and decreaſe of diſeaſes, ...474
Female Jacobin club,.....115
Fever (epidemic catarrhal) of 1800, Obſervations on the, ...232
Filkes's Sermon, ...229
Findlay's Divine inſpiration of the Jewiſh ſcriptures, ...216
Fiſhes, Natural hiſtory of,.....527
Five common-ſenſe arguments on efficacy and duty of inoculation,.....233
Flavell's Saint indeed, ...230
Foot's caſes of veſicæ lotura, ...353
FOREIGN LITERATURE.
Denmark, ...586
France, ...573
Germany, ...577
Hamburg, ...582
Holland,.....585
Italy, ...583
Ruſſia, ...591
Sweden,.....588
Foſbrooke's Britiſh monachiſm, ...39
Frantic conduct of John Bull, ...357
France, A few facts to ſhew ambition of, ...349
———, Letters from,.....44
———, Obſtacle to the ambition of, 224
———, Literature of, ...573
Freeman's general epiſtle to Quakers 352
Friendly ſocieties, Sermons reſpecting, ...229, 230

GARNETT's conſecration ſermon, 359
Gentz on the ſtate of Europe,.....436
Germany, Literature of,.....577
Gifford's examination of Critical Reviewers' ſtrictures on his Juvenal 337
Good's tranſlation of the Song of Songs, ...301
——— Triumph of Britain,.....468
Goſpel miniſtry, Hints on the ordinance of a, ...229
Great Britain, Vindication of the cauſe of,.....348
Grimani's Converſations, ...476
Guardian angel,.....110
Gunter (ſliding), Deſcription and uſe of, ...359

HAMBURG, Literature of,.....582
Hancock's Reaſons, ...105
Haweis's Bleſſings of peace, ...100
Hawker's Spirit's work in the heart, 553
Hayley's life of Cowper, ...1
Heberden on the increaſe and decreaſe of different diſeaſes, 371—Falconer's examination of do.....474
Heliogabalus,.....546
Herdman on influenza, ...232
Herries's tranſlation of Gentz on the ſtate of Europe, ...436
Hicks's obſervations on Pearſon's examination of report of vaccine pock committee,.....358
Hinckley's tranſlation of Link's travels, ...157
Hints on the ordinance of a goſpel miniſtry,.....229
——— (Uſeful) to ruptured perſons, 475
Hiſtorical and deſcriptive account of Bath 359
———- and political view of the diſorganiſation of Europe, ...428
Hiſtory of England, Brief epitome of, 234. key to blanks in, ...234
——— of man,.....110
——— of the mathematics, ...481
——— (Natural) of fiſhes, ...527
Hoare's extracts from correſpondence with academies of Vienna and Peterſburg, ...480
Holland, Literature of,.....585
Homer, Oxford edition of,....121, 341

Hood's elements of war, ... 360
Hooper on the epidemic diſeaſes prevailing in London, ... 231
Horſes and dogs, Treatiſe on diſeaſes of, ... 475
Hot climates, Medical directions for navigators and ſettlers in, ... 232
Houſe to be ſold, ... 115
Hubbard's Triumphs of poeſy 113
Hunter's vindication of the cauſe of Great Britain, ... 348
Hutton's abridgement of the Philoſophical Tranſactions, ... 444
——— tranſlation of Ozanam's Recreations, ... 410
Hydrometer, Inquiry into cauſe of errors in aſcertaining ſtrength of ſpirits by, 478

ICELAND, Travels in, ... 536
Impregnation (animal), Eſſay on proximate cauſe of, ... 355
India company's affairs, Letter reſpecting ſituation of, ... 360
Infancy, ... 356
Influenza of 1800, Obſervations on the, ... 232
———————, Cauſes, ſymptoms, &c. of the, ... 232
Inoculation, Five common ſenſe arguments for efficacy and duty of, .. 233
———— of the vaccine pock, Reſults of the, ... 107
———— (variolous and vaccine), Addreſs on, ... 233
Inquiry into cauſes of errors in aſcertaining ſtrength of ſpirits by hydrometer, ... 478
——— into effects of Venereal poiſon, ... 106
——— into neceſſity, &c. of revealed religion, ... 194
——— into origin of true religion, 101
Inſtitute (French national) Memoirs of the, ... 507
Inſurance, Law of, ... 203
Invincible ſtandard, ... 238
Ireland, Eſſays on population of, .. 226
Italian language, Practical rules for the, ——— lyrics, ... 72
——— poetry, Commentaries on the hiſtory of, ... 401
Italy, Literature of, ... 583
——— Travels in, ... 562
Jacobin club, Female, ... 115
John Bull, Frantic conduct of, ... 357

KERR's Scottiſh ſongs, ... 357
Kerwald caſtle, ... 478
King's letters from France, ... 44
Kipling on the XXXIX Articles, Remarks on, ... 228
Klaproth's memoirs, ... 543
Kotzebue's Female Jacobin club, .. 115
———— Guardian angel, ... 110

LA CEPEDE'S natural hiſtory of fiſhes, ... 527
Languages, Conformity of European with oriental, ... 34
Lectures on the leſſons of the Old Teſtament, ... 473
Leigh on the depravity of the human heart, ... 229
Leopold, ... 441
Letter to a member of Parliament, . 349
——— to Mr. Addington, ... 360
——— to proprietors of Eaſt India ſtock, ... 360
——— to a noble duke, ... 103
——— to lord Pelham, ... 462
Letters from France, ... 44
——— (Four) to chancellor of exchequer, ... 346
Lettſom's addreſs on inoculation .. 233
———— appeal, ... 359
Libraries (parochial), Letter on the eſtabliſhment of, ... 360
Library, Village 109
Life of Cowper, ... 1
Link's travels, ... 157
Linnæan ſociety, Tranſactions of the, 376
Lioncel, ... 478
Literature, Claims of, ... 168
London clergy, Caſe reſpecting maintenance of, ... 120
Lorimon, ... 476
Lottery of life, ... 115
Louiſiana (French poſſeſſion of) conſidered, ... 227
Lowe's Advantages of female friendly ſocieties conſidered, ... 230
——— poems, ... 197
Lucy Oſmond, ... 237
Lyttleton's lottery of life, ... 115

MACKEY's deſcription and uſe of the ſliding Gunter, ... 359
Man in every ſtage of life, ... 477
——— in ſavage and civiliſed ſtate, Hiſtory of, ... 110
Manucii, Hiſtory of the three, ... 569
Marriage promiſe, ... 236
Marſhall's law of inſurance, ... 203
Martin on the ſtate of mendicity in the metropolis, ... 462
Marvellous adventures, ... 110
Materia medica, Practical ſynopſis of, ... 475
Mathematics, Hiſtory of the, ... 481
Mathias's edition of Creſcembini's commentaries, ... 401

Mathias's ſelection of Italian lyrics, 73
Matthews's Recorder, ... 108
Medical directions for navigators and ſettlers in hot climates, ... 232
Memoirs of the French national inſtitute, ... 507
——— ſubſervient to chemical knowledge of mineral bodies, ... 543
Mendicity (ſtate of) in the metropolis, Letter on, ... 462
Meyer's travels in Italy, ... 562
Mild tenour of Chriſtianity, ... 351
Mineral bodies, Memoirs ſubſervient to chemical knowledge of, ... 543
Minor's Magazine, ... 110
Modern converſation, ... 234
——— diſcoveries, ... 118
Moir's pariſh church, ... 101
Monachiſm, Britiſh, ... 39
Montagu's ornithological dictionary, 330
Montucla's hiſtory of the mathematics, ... 481
Moore's Caſe reſpecting maintenance of London clergy, ... 120
——— poems, ... 210
Mooriana, ... 117
Morgan's edition of Price on reverſionary payments, ... 422
Mudford's Auguſtus and Mary, .. 358
Munkhouſe's tranſlation of Durand's ſermons, ... 59
Munnings's account of experiments for drilling and protecting turnips, .. 355
Murray's Power of religion on the mind, ... 238
Muſcles of the human body, Deſcription of the, ... 354

NARES's correſpondence with reviewers, ... 239
Narrative poems, ... 433
National inſtitute, Memoirs of the, 507
Natural hiſtory of the earth, Short view of the, ... 110
——— hiſtory of fiſhes, ... 527
Negotiation with France, Documents relative to the, ... 98
Newenham's Obſtacle to the ambition of France, ... 224
New year's gift for children of charity and Sunday ſchools, ... 230
Neville caſtle, ... 358
NOVELS, ROMANCES, &c.
American, ... 237
Auguſtus and Mary, ... 358
Convent of St. Michael, ... 237
Delphine, ... 48
Guardian angel, ... 110
Heliogabalus, ... 546
Kerwald caſtle, ... 478
Leopold, ... 441
Lioncel, ... 478
Lorimon, ... 477
Lottery of life, ... 115
Lucy Oſmond, ... 237
Marvellous adventures, ... 110
Neville caſtle, ... 358
Pretty pilgrim, ... 234
Travels of Alladin, ... 116
Vale of Conway, ... 478
Victor, ... 115
Village library, ... 109

OBELISKS, Origin and uſe of, .. 554
Obſervations on epidemic catarrhal fever of 1803, ... 232
——— on epidemic diſeaſes prevailing in London, ... 231
——— on increaſe and decreaſe of different diſeaſes, 371---Examination of ditto, ... 474
——— on Pearſon's Examination of Report of vaccine pock committee, ... 108, 358
——— upon ſome paſſages of Scripture, ... 314
——— on reverſionary payments, ... 422
——— on a tour through England and Scotland, ... 270
Ode to country gentlemen of England, ... 467
Official papers relative to preliminaries of London and treaty of Amiens, 456
——— documents relative to negotiation with France, ... 98
Ophthalmia (Egyptian), Attempt to inveſtigate cauſe of, ... 354
Ornithological dictionary, ... 330
Orr on the French poſſeſſion of Louiſiana, ... 227
Ozanam's Recreations, ... 410

PAPERS (Official) relative to preliminaries of London and treaty of Amiens, ... 456
Paris, Rough ſketch of modern, ... 87
Pariſh church, ... 101
Parnaſſo degl' Italiani viventi, ... 496
Parties, Curſory remarks on the ſtate of, ... 461
Patriotic effuſions, ... 472
Peace, Bleſſings of, ... 100
Pearſon on the influenza of 1800, .. 232
——— 's abridgement of the Philoſophical Tranſactions, ... 444
Peart on eryſipelas, ... 474
Pelham, Letter to lord, ... 462
Pharmacopœia Edinburgenſis, ... 255
Philoſophical Tranſactions of royal ſociety, ... 15, 263

Philosophical Transactions, Abridgement of, ... 444
Pilgrim, The pretty, ... 234
Pilkington (Mrs.)'s Vicissitudes of a cat, ... 110
Pitt's sermon, ... 228
Plain discourse on causes, &c. of influenza, ... 232
Pleader's guide, ... 418
POETRY.
Apollonius Rhodius translated, .. 241
Bonaparte's soliloquy, ... 471
Booker's poems, ... 114
Crisis of Britain, ... 467
Dramatic poems, ... 285
Dryden's Virgil, ... 27
Frantic conduct of John Bull.... 357
Infancy, ... 356
Italian lyrics, ... 72
Lowe's poems, ... 197
Moore's poems, ... 210
Narrative poems, ... 433
Ode to country gentlemen of England, ... 467
Parnassus of living Italians, ... 496
Patriotic effusions, ... 472
Pleader's guide, ... 418
Poetry by author of Gebir, ... 235
Scottish poems 357
Tales of superstition and chivalry, 110
Temple of nature, ... 361
Triumph of Britain, ... 468
Triumphs of poesy, ... 113
Wallace, ... 234
Works of the English poets, ... 218
Younge's Anacreon, ... 64
Police, Regulations of parochial, .. 461
Polidori's Moderna conversazione,.. 234
Poor child's friend, ... 110
Portugal, Travels in, ... 157
Power on Egyptian ophthalmia,.... 354
Possession of Louisiana by the French, considered, ... 227
Power of religion on the mind, ... 238
Practical information on St. Antony's fire, ... 474
——— lectures on proper lessons of Old Testament for Sunday service, 473
——— rules for the Italian language, ... 476
——— synopsis of materia medica, 475
Preston's translation of Apollonius Rhodius, ... 241
Pretty pilgrim, ... 234
Prevost and Blaglon's Mooriana, .. 117
Price on reversionary payments, New edition of, ... 422
Principles of analytical calculation, 187
Public characters of 1800-1, ... 80
Pulley on the proximate cause of animal impregnation, ... 355

QUAKERS, General epistle to, .. 352
———, Reasons for withdrawing from society of, ... 105
———, Tracts, &c. relative to, 103
———, Examination of "Appeal to society of" 106

REASONS for withdrawing from society of Quakers, ... 105
Recorder, ... 103
Recreations in mathematics and natural philosophy, ... 410
Renouard's annals of the Aldine press, ... 569
Reflections on the causes of the war, 459
Reformation-mongers (church), Word of advice to, ... 352
Regulations of parochial police, ... 461
Religion (Power of) on the mind,.. 238
——— (revealed), Inquiry into necessity &c. of, ... 194
——— (true), Inquiry into origin of, 101
Remarks on Kipling, ... 228
——— on late war in St. Domingo, 224
——— (A few cursory) on state of parties, ... 461
Reply to financial mis-statements,.. 347
Results of the inoculation of the vaccine, ... 107
RETROSPECT OF FOREIGN LITERATURE.
Denmark, ... 586
France, ... 573
Germany, ... 577
Hamburg, ... 582
Holland, ... 585
Italy, ... 583
Russia, ... 591
Sweden, ... 588
Reversionary payments, Observations on, ... 422
Reviewers (Critical) —Correspondence, ... 239
———————) Examination of their strictures on Gifford's Juvenal, ... 337
Rippon on the origin and progress of the society for promoting religious knowledge among the poor, ... 352
Ritson on abstinence from animal food, ... 116
Robinson on the necessity, &c. of revealed religion, ... 194
Rome under the emperors, Sketch of the profligacy of, ... 546
Ruptures, useful hints to persons afflicted with, ... 475
Russia, Literature of, ... 591

SAINT (A) indeed, ... 230

JUL 3 1940